ETS | Event Trigger System

IP CAMERA SERIES

OPERATION GUIDE

Please read instructions thoroughly before operation and retain it for future reference.

IMPORTANT SAFEGUARD

All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive, which means our manufacture processes and products are strictly “lead-free” and without the hazardous substances cited in the directive.

The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste. Contact your local dealer for procedures for recycling this equipment.

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Federal Communications Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device mat not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

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Disclaimer

We reserve the right to revise or remove any content in this manual at any time. We do not warrant or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of this manual. The content of this manual is subject to change without notice.

This product doesn’t have a standby / off mode.

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The GPL Code used in this product is released without warranty and is subject to the copyright of the corresponding author.

Further source codes which are subject to the GPL-licenses are available upon request.

We are pleased to provide our modifications to the Linux Kernel, as well as a few new commands, and some tools to get you into the code. The codes are provided on the FTP site, and please download them from the following site or you can refer to your distributor:

Model 1, 2, 3 & 4: http://download.dvrtw.com.tw/GPL/IPCAM/F-Seriers/linux.tar.gz
Model 5: http://download.dvrtw.com.tw/GPL/IPCAM/A-Seriers/linux.tar.gz
Model 6 & 7: http://download.dvrtw.com.tw/GPL/IPCAM/S-Seriers/linux.tar.gz

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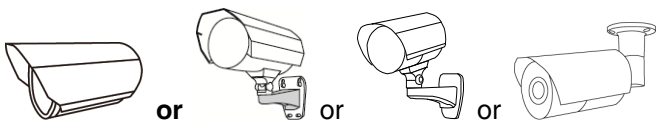
1. OVERVIEW

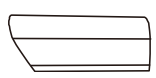
1.1 Product Features

- Easy **network setup** with your **iPhone / iPad**
- **1.3 / 2 Megapixel** solution with **HDTV 720p** quality, allowing users to notice minor details more easily
- **Solid light** series featuring better overexposure prevention (Advanced Smart Light Control)
- **ONVIF** standard supported to simplify system integration
- **POE (Power-over-Ethernet)** support to eliminate the use of power cables and reduce installation costs
- **External alarm I/O device** connection
- IR LEDs built-in for **night surveillance**
- *(For selected model only)* Equipped with a **vari-focal lens** of f2.8 ~ 12mm, suitable for various monitoring environments.
- *(For selected model only)* **WDR** to increase image recognizability in overexposure and dark areas.
- *(For selected model only)* Zoom lens of f6.0 ~ 60mm with **10x optical zoom**, 10x digital zoom and auto focus, suitable for various monitoring environments.
- *(For selected model only)* Micro SD card support for video storage.
- *(For selected model only)* **Built-in heater** which can operate at temperatures as low as -40℃.
- *(For selected model only)* **Push Video** to send event notifications to iOS or Android devices immediately
- **Remote Surveillance**
  -- Full compatibility on **iPhone & iPad**, and **Internet Explorer®** on Windows® operating system

1.2 Package Content

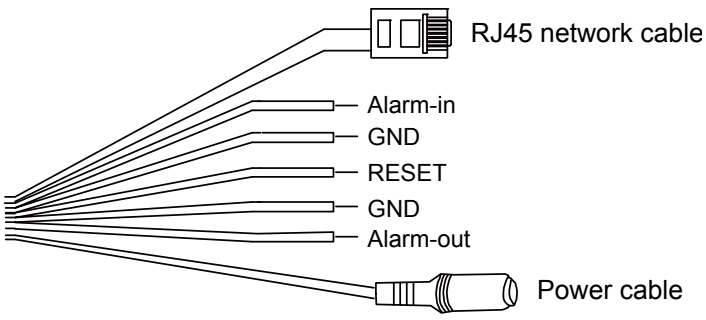
	
Camera	Quick guide

For selected models only:

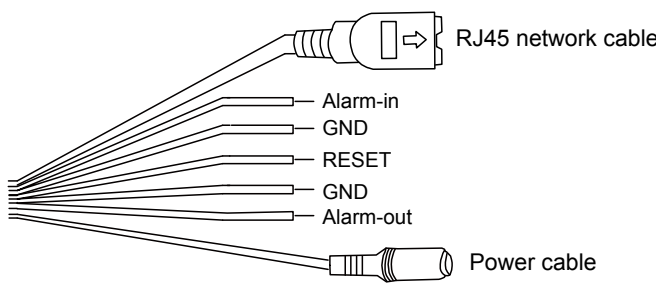
					
Screws	Wall Plugs	Wrenches	Bracket	Desiccant	Sun Shield

1.3 Cable Overview

Type A:



Type B:

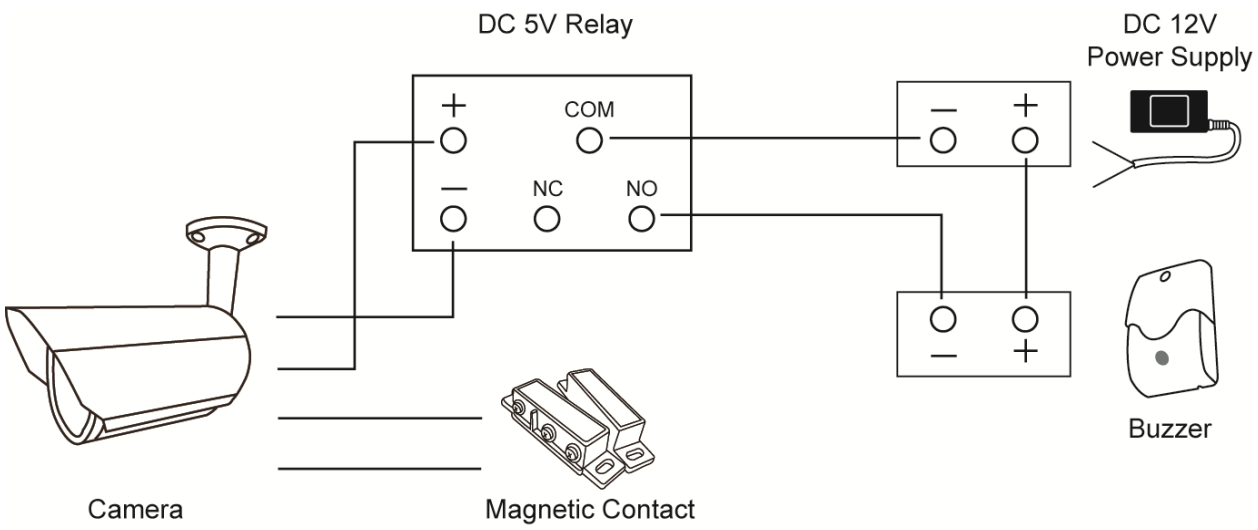


Cable	Description
Power cable	Connect to DC12V power supply. **Note:** The power adapter is optional.
RJ45 network cable	Connect it to the supplied RJ45 cable extender adapter for cable extension, and prepare another RJ45 network cable with suitable length for your connection.
GND	Ground wire, used for reset default or external device connection.
Alarm-in	Reserved for connecting to an external alarm device. For details, please refer the user manual of your alarm device.
Alarm-out	Reserved for connecting to an external alarm device. For details, please refer the user manual of your alarm device.
RESET	Remove the insulating coating of this wire, and twist it with a ground wire together to reset default. This will reset all parameters, including the IP address to factory default settings. **Note:** Disconnect power before twisting these two wires together, and connect to power again for reset default.

1.5 External Alarm Connection

This camera supports external I/O device connection for easy connection.

Below shows you how to connect an external device to this camera.



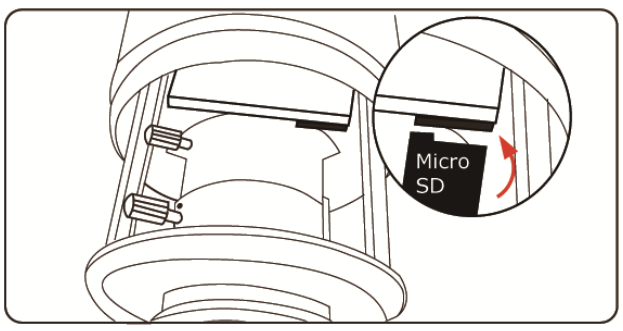
1.5 Insert a Micro SD card (For selected models only)

For local video recording, a micro SD card slot can be found on the camera. The camera doesn't support hot-swapping. Please insert or remove the micro SD card with power disconnected. The data originally saved in the micro SD card (if any) will be removed after inserting it to the camera.

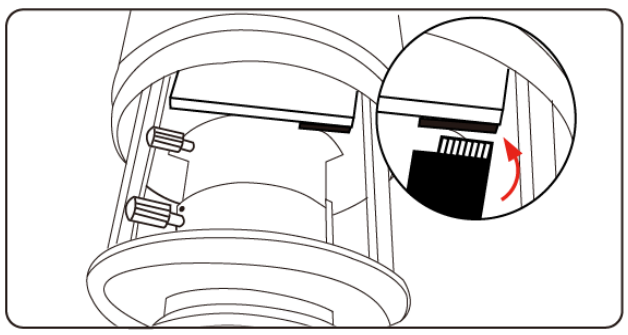
Note: Only selected models are equipped with a micro SD card slot for local video recording.

Please follow the directions in the below graphic to insert Micro SD card properly:

Type A:



Type B:



Note: It's recommended to use tweezers for inserting / removing Micro SD card.

2. CAMERA ACCESS WITH INTERNET EXPLORER

This network camera can be accessed via Microsoft® Internet Explorer® and iPhone / iPad / Android mobile devices with our self-developed program “EagleEyes” installed depending on different using situations.

Note: For details about accessing network cameras via iPhone / iPad / Android mobile devices, please refer to http://www.eagleeyescctv.com.

Before using the camera, make sure you have configured the network settings, and the network connection is fine.

For network configurations, please refer to:

- “**ADVANCED NETWORK SETUP**” downloadable from www.surveillance-download.com/user/m359a.swf if your network environment is not wireless.

2.1 Camera Login

Step1: Open your web browser, and key in http://*ipaddress*:*portnum* in the URL address box.

For example, for the IP address 60.121.46.236 and port No. 888, please key in ”http://60.121.46.236:888” into the URL address box, and press “Enter”.

Step2: In the login page, key in the user name and password, and enter the security code from the image below if any. Then, click “LOGIN”.

Step3: The wizard is then started.

- To skip the wizard and directly access the camera live view, click “Close”.
- To directly access the camera live view without starting the wizard for the login next time, check “Do not start wizard at login”.

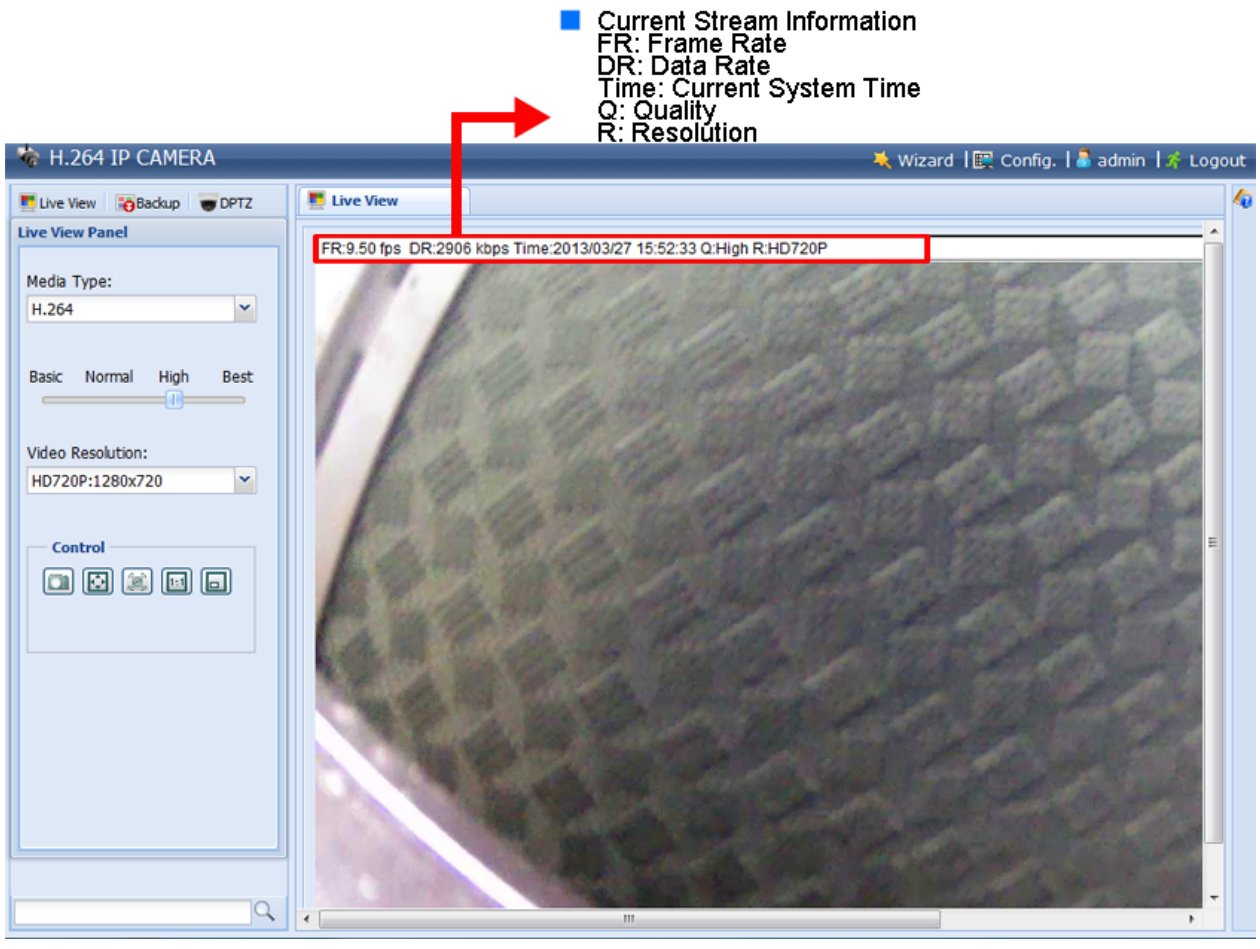
Note: If you’re prompted to install “VLC player”, “Software” and “H264 Streaming Viewer”, please agree to proceed the installation.

Step5: When the login is successful, the live view is shown.

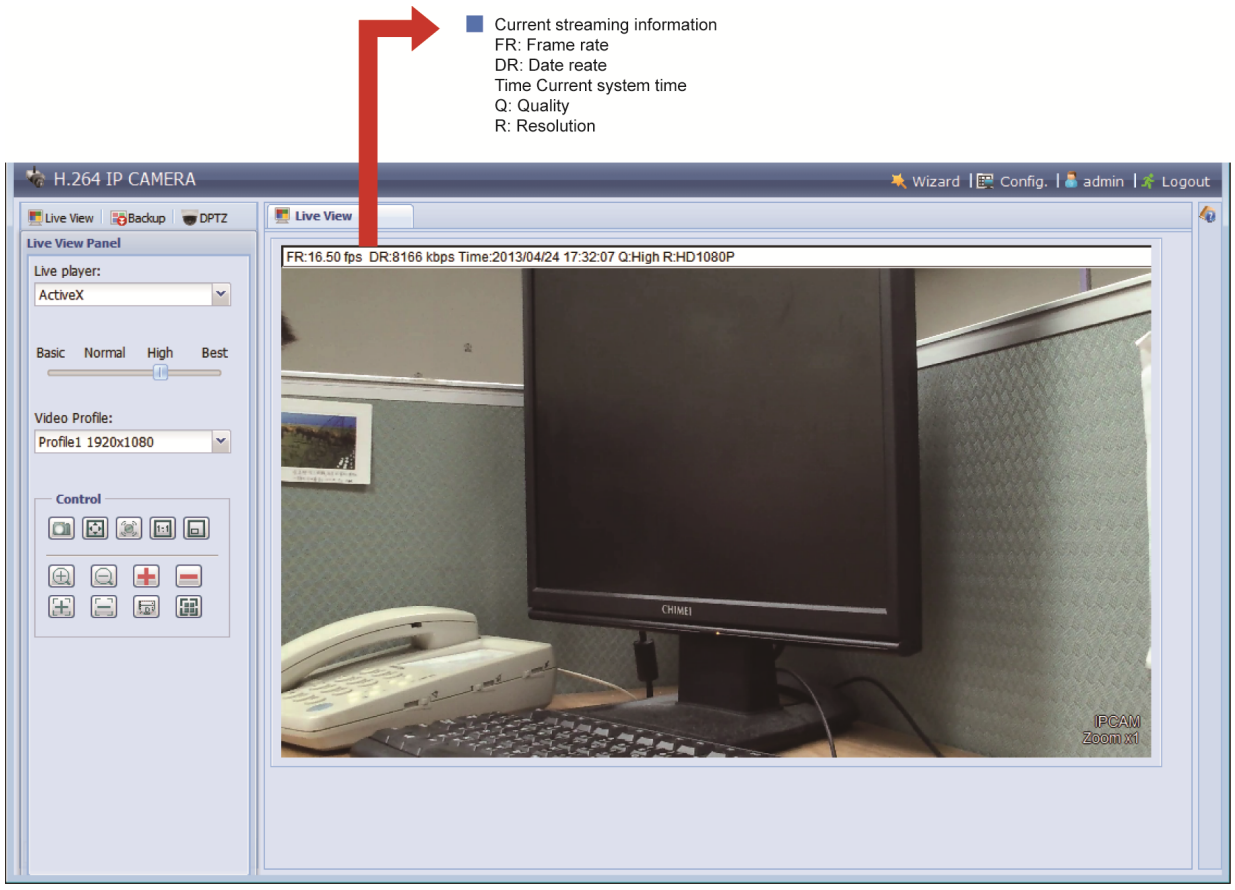
2.2 Control Panel Overview

Note: The buttons available depend on the user level used to log in.

➢ Type A:



➢ Type B:



Function	Icon	User Level	Description
Live		Supervisor / Power User / Normal User / Guest	Switch to the live view page.
DPTZ		Supervisor / Power User / Normal User	Switch to the DPTZ configuration page. For details, please refer to “2.3 Digital PTZ (DPTZ) Operations” at page 6.
Backup		Supervisor / Power User	Enter the event record list for video playback. For details, please refer to “2.4 Event Record Search & Playback’ at page 9.
Config.		Supervisor / Power User	Switch to the system configuration page, and the functions available for “Supervisor” and “Power User” are different. For details, please refer to “3.1 System configuration menu” at page 10.
Media Type*	--	Supervisor / Power User / Normal User / Guest	Select the image player from the drop-down list: ■ H.264 / MPEG-4 / Motion JPEG ■ QuickTime QuickTime is Apple Inc.’s multimedia software. You need to have QuickTime installed in your operating system before selecting “QuickTime”. When it is selected, you will be promoted to enter the user name and password to access the camera. ■ VLC
Live player*	--	Supervisor / Power User / Normal User / Guest	Select the image player from the drop-down list: ■ ActiveX ■ QuickTime QuickTime is Apple Inc.’s multimedia software. You need to have QuickTime installed in your operating system before selecting “QuickTime”. When it is selected, you will be promoted to enter the user name and password to access the camera. ■ VLC
Quality	--	Supervisor / Power User / Normal User	Click & drag the slider to select the video quality: BASIC / NORMAL / HIGH / BEST.
Video Resolution	--	Supervisor / Power User / Normal User	Select the image resolution from the drop list: 2 megapixel model ■ HD1080P (1920 x 1080) ■ HD720P (1280 x 720) ■ VGA (640 x 480) or D1 (720 x 480) ■ QVGA (320 x 240) or CIF (352 x 288) 1.3 megapixel model ■ SXGA (1280 x 1024) ■ HD720P (1280 x 720) ■ VGA (640 x 480) ■ QVGA (320 x 240)
Video Profile*	--	Supervisor / Power User / Normal User	Select the pre-defined video set from the drop list. The video set could be configured in “Config” -> “Camera” -> “Video”.

Function	Icon	User Level	Description
Live View Size:		Supervisor / Power User / Normal User	
Full Screen			Click to display the image in full screen. To exit the full screen mode, press “Esc” on your keyboard. *This icon appears only when the selected resolution is HD1080P, SXGA or HD720P & VGA.*
Double size			The QVGA resolution is resized to fit into the current live view size. *This icon appears only when the selected resolution is QVGA.*
Normal Size			The current live view size is the same as the selected resolution. *This icon appear only when the selected resolution is SXGA or HD720P or HD1080P.*
Fit to screen			The selected resolution is resized to fit into the current live view size. *This icon appear only when the selected resolution is SXGA or HD720P or HD1080P.*
No Scale			Click and hold the movable square on the left bottom corner of the live view to move *This icon appear only when the selected resolution is SXGA or HD720P or HD1080P.*
Snapshot		Supervisor / Power User / Normal User	Click to take a snapshot of the current view on a new window. Right click on the picture and re-save it to the location you want.
Alarm Out		Supervisor / Power User / Normal User	Click to force your alarm-out device to work. For example, when your alarm device is a buzzer, click this button and your buzzer will start to sound even if there’s no alarm event.
Zoom-in / out*		Supervisor / Power User / Normal User	Click to zoom in / out the current image.
Max. Zoom-in / out*		Supervisor / Power User / Normal User	Click to zoom in the image to the largest / zoom out the image to its original size.
Focus near / far*		Supervisor / Power User / Normal User	Click to adjust the clearness of the video images.
DPTZ		Supervisor / Power User / Normal User	Click to enable digital PTZ functions with zoom-in ratio up to 16X.
Focus Assist*		Supervisor / Power User / Normal User	Click to help you determine whether the image clearness is adjusted well when you're adjusting your camera focus. Two values will be calculated and shown as “XX / YY”. ■ YY is the best focus value for your current camera view ■ XX is your current focus value When XX is closer to YY, the clearer and sharper images you’ll get for your camera view.

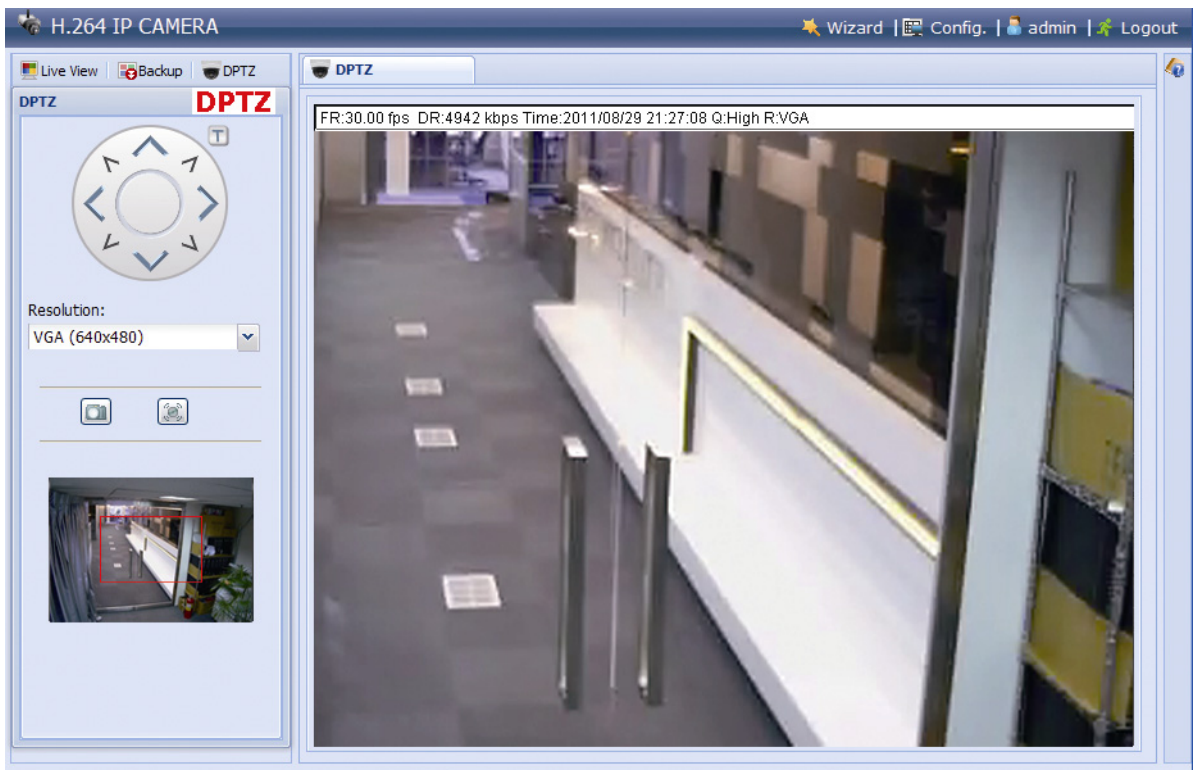
** For selected models only*

2.3 Digital PTZ (DPTZ) Operations

This camera has PTZ capability, i.e. digital PTZ (hereafter called “DPTZ”), for wide area monitoring.

STEP1: Click “DPTZ” to show the DPTZ control panel.

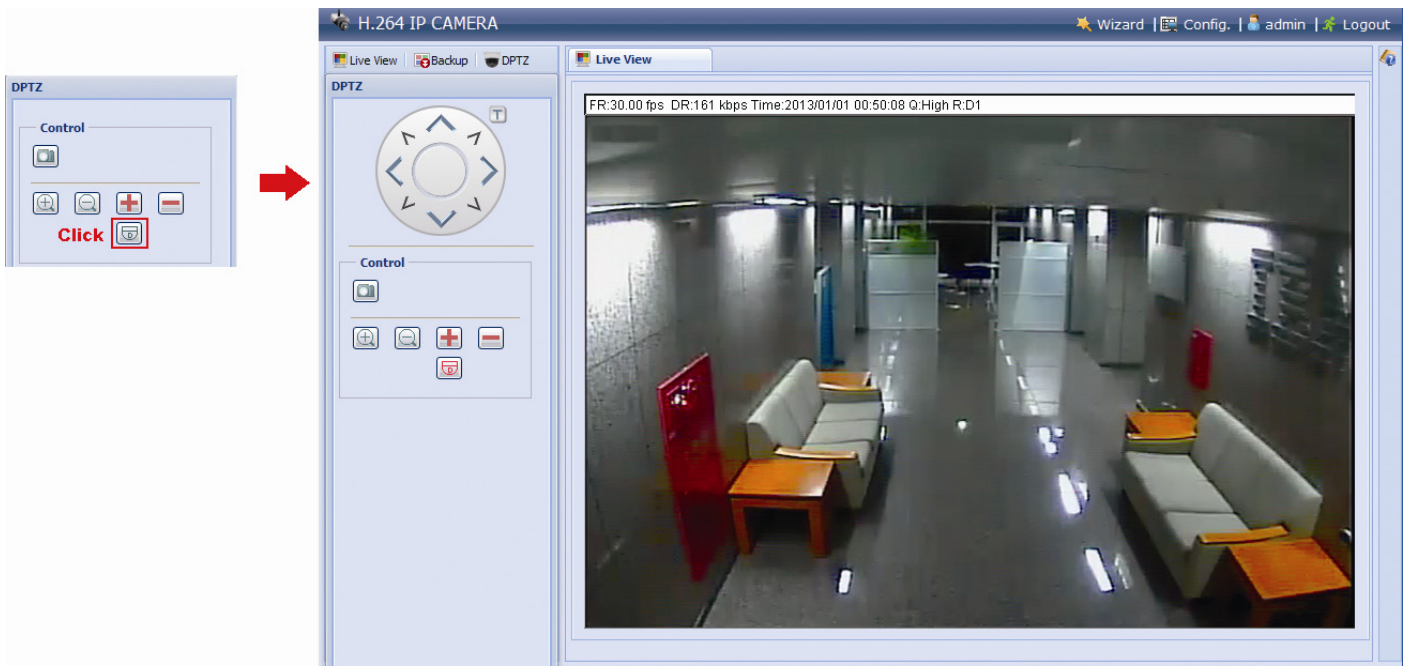
- Type A:



STEP2: Select the functions when needed:

FUNCTION	ICON	DESCRIPTION
Resolution	--	Select the video resolution for the DPTZ function. Only “VGA” and “QVGA” are available.
Take snapshots		Click to take a snapshot of the current view on a new window. Right click on the picture and re-save it to the location you want.
Alarm Out		Click to force your alarm-out device to work. For example, when your alarm device is a buzzer, click this button and your buzzer will start to sound even if there’s no alarm event.

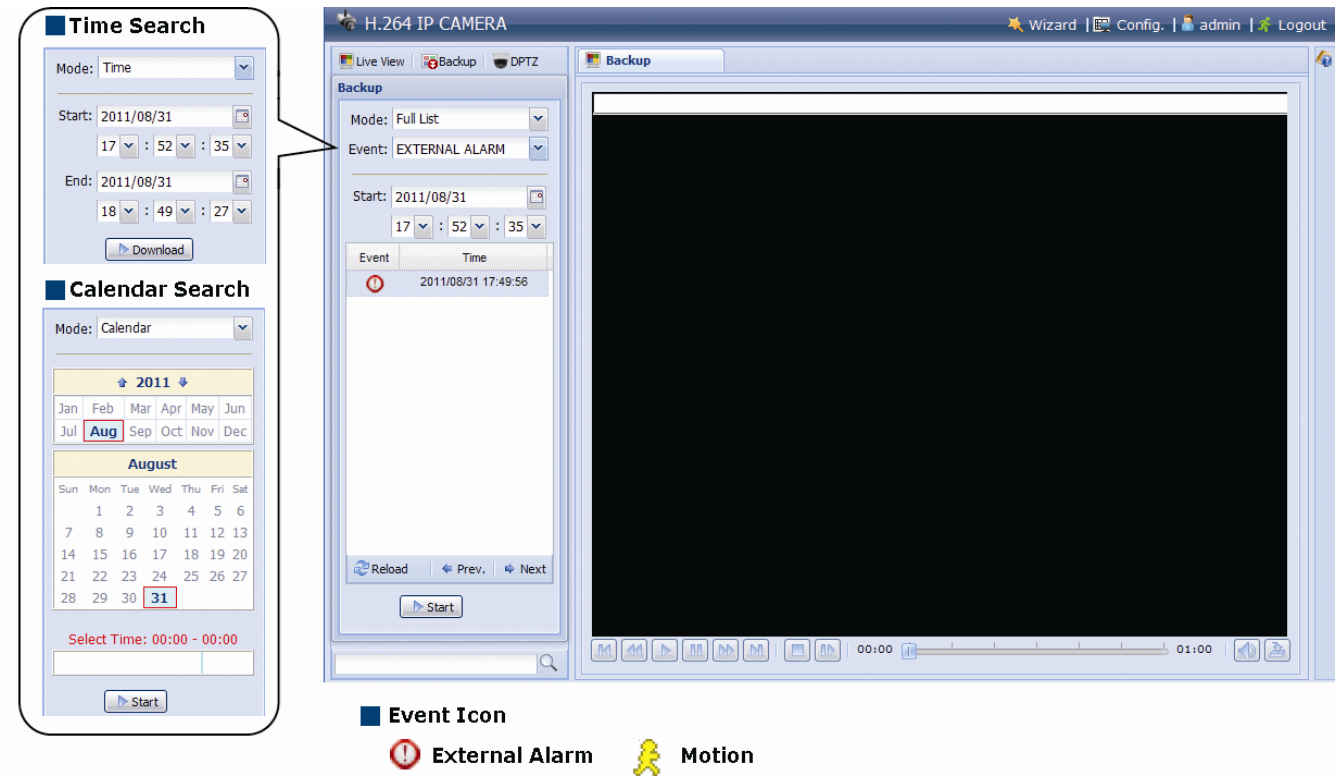
➢ Type B:



FUNCTION	ICON	DESCRIPTION
Moving panel	--	When is selected, the moving control panel will be shown to move the picture after zoom-in is performed.
Take snapshots		Click to take a snapshot of the current view on a new window. Right click on the picture and re-save it to the location you want.
Scale		The selected resolution is resized to fit into the current live view size. *This icon doesn't work when the selected resolution is VGA or QVGA.*
Zoom in / out	/	Click once to enlarge the picture by 1X, and click once to restore the zoom ratio by 1X.
Max. zoom in / out	/	Click once to enlarge the picture to the max zoom ratio by 16X, and click once to restore the picture ratio to 1X.
Focus near / far	/	Click to adjust the clearness of the video images.

2.4 Event Record Search & Playback

Note: To save more recorded data, it's recommended to use this camera with a compatible NVR.



/	Previous / Next Hour	Click to jump to the next / previous time interval in an hour, for example, 11:00 ~ 12:00 or 14:00 ~ 15:00, and start playing the earliest event video clip recorded during this whole hour.
	Fast Forward	Increase the speed for fast forward. Click to get 2X, 4X, 8X & 16X speed forward eventually.
	Fast Rewind	Increase the speed for fast rewind. Click to get 2X, 4X, 8X & 16X speed rewind eventually.
	Play	Click to play the current video clip.
	Pause	Click to pause the video playback.
	Stop	Click to stop the video playback.
	Step	In the pause mode, click to get one frame forward.
	Audio	Click to mute the playback if necessary, and click again to restore.
	Download	Click to download the current video clip to the specified path in your PC. *The downloaded video can only be opened by our own video player. Please go to "General" → "Maintenance" to download the video player, or get the player from the CD supplied with the sales package.*

3. CAMERA CONFIGURATIONS

Users can further configure this network camera by accessing via Internet Explorer.

3.1 System configuration menu

Click “Config.” to enter the configuration page.

The functions are categorized into six menus: Network, Camera, Record Timer, Storage, Trigger and General.

- For details about “Network”, please refer to “3.2 Network” at page 12.
- For details about “Camera”, please refer to “3.3 Camera” at page 19
- For details about “VA”, please refer to “3.4 VA (For selected models only)” at page 22.
- For details about “Record”, please refer to “3.5 Record” at page 22.
- For details about “Storage”, please refer to “3.6 Storage” at page 23.
- For details about “Trigger”, please refer to “3.7 Trigger” at page 24.
- For details about “General”, please refer to “3.8 General” at page 26.

Main Menu	Sub-Menu	Reference
Network	Network	Configure network settings.
	QoS	Limit the data flow for live streaming.
	DDNS	Enter DDNS information when the network type is PPPOE or DHCP.
	SNTP	Synchronize your camera time with the networked computer systems.
	FTP	Enter the FTP information for event notifications when “FTP” is chosen in “Trigger” → “Trigger”.
	Mail	Enter Email information for event notifications when “Email” is chosen in “Trigger” → “Trigger”.
	SMS	Enter text messaging information for SMS notifications when “SMS” is chosen in “Trigger” → “Trigger”.
	Filter	Choose to permit or block the IP address(es) which can access this camera.
	UPnP	**Suitable for Windows-based operating system.* Allow this camera to be detected among devices within the same network area for easy and quick usage.
	Bonjour	**Suitable for Apple Mac-based operating system.* Allow this camera to be detected among devices within the same network area for easy and quick usage.
	RTP	Set the parameters for video data transmission when you’re using multimedia other than web broswers and Video Viewer for remote access.
	SNMP*	Configure SNMP to remotely manage network devices.
Camera	Camera	1. Rename the camera. 2. Change the place where the camera name is shown on the screen.
	Video	Adjust video-related settings in different video format.
	ROI*	Select a specific area to reinforce the image quality of that area.
	Color	Adjust the color performance.
	Advance	Adjust the camera parameters if necessary.
	Privacy Mask*	Cover certain areas on the camera image.
VA*	TA*	This function should be used with the mini-guard control switch for alarm system integration. For details, please check with your distributor or installer.
	DIS*	Enable this function to reduce blurring associated with the motion of a camera during exposure.
Record	Record	Configure the record function.
	Record Timer	Schedule external alarm recording.
Storage	Memory	Check the current storage capacity and clear all recorded data when needed.
Trigger	Trigger	1. Enable / disable the motion detection. 2. Set the motion detection area. 3. Configure how the camera reacts for any event.
	Push Video	

*Selected models only

Main Menu	Sub-Menu	Reference
General	General	1. Select the language of the web browser. 2. Check the MAC address of the camera. 3. Lock camera access after the specified time.
	Time	Set daylight saving time and the current time.
	Server Log	Check the system event logs.
	Online	Check the current online user(s).
	Account	1. Create a new user account with different access privilege. 2. Modify or delete an existing user account.
	Google Maps	Allow you to know where the network camera is.
	Maintenance	1. Check the current firmware version and upgrade your camera. 2. Copy system configurations. 3. Reboot the camera. 4. Download the video player to play the recorded data.

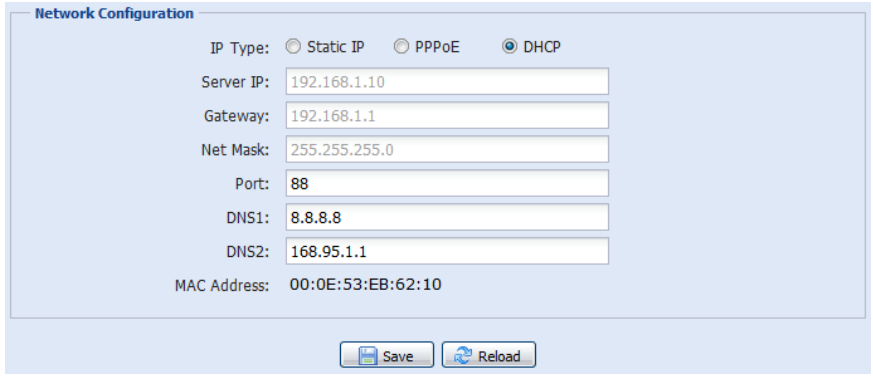
*Selected models only

3.2 Network

3.2.1 Network

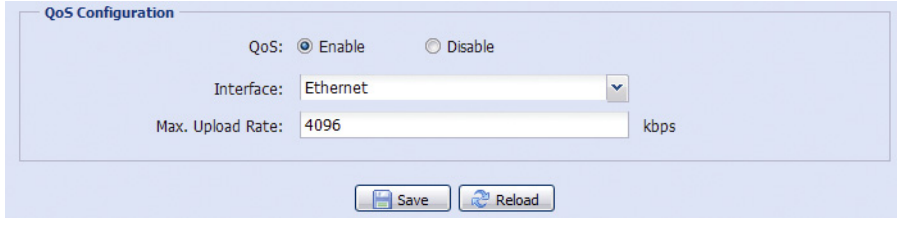
You can set the network configuration of the network camera depending on your network type.

For details, please refer to “Advanced Network Setup” from www.surveillance-download.com/user/m359a.swf.



3.2.2 QoS

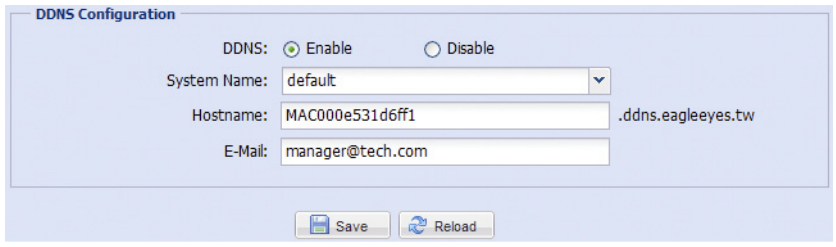
QoS, Quality of Service, is the ability to control the data flow for real-time streaming. This function is important if your network bandwidth is insufficient and you have other devices to share the network bandwidth.
Check “QoS Enable”, and set the max. upload rate from 256 to 10240 kbps.



3.2.3 DDNS

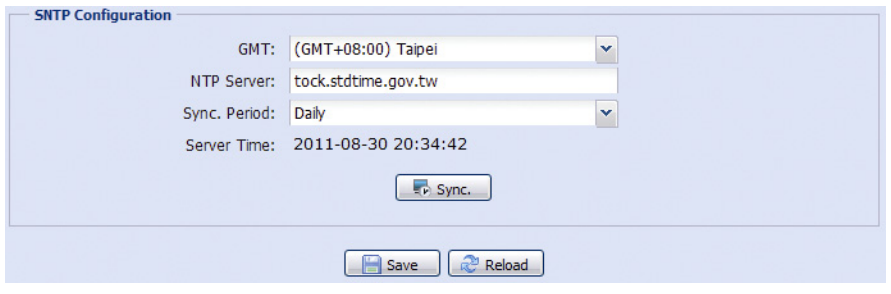
Select “On” when the selected network type in “Network” is “PPPOE” or “DHCP”.

For details, please refer to “Advanced Network Setup” from www.surveillance-download.com/user/m359a.swf.



3.2.4 SNTP

SNTP (Simple Network Time Protocol) is used to synchronize your camera time with the networked computer..



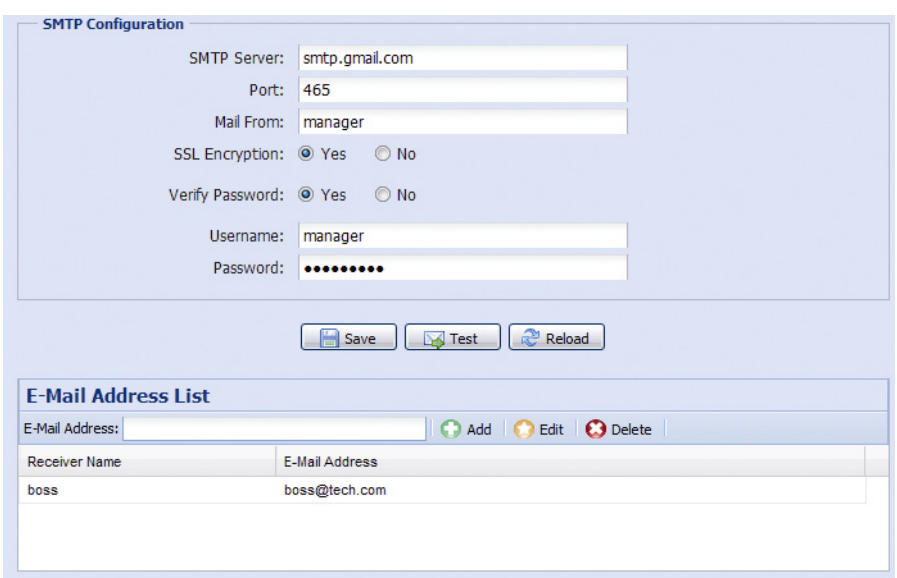
Function	Description
GMT	Once users choose the time zone, the network camera will adjust the local area time of the system automatically.
NTP Server	Simply use the default SNTP server (For example, tock.stdtime.gov.tw) or change to another server with which users are familiar.
Sync. Period	Select “Daily” to synchronize the camera time with the network time every day or “None” to turn off this function.
Sync	Click and the network camera will synchronize the time with the network time.

3.2.5 FTP

Enter the detailed FTP information and click “Save” to confirm. The information you set here will be applied when “FTP” is selected in “Trigger” → “Trigger”.

3.2.6 MAIL

Enter the detailed e-mail information and click “Save” to confirm. The information you set here will be applied when “Email” is selected in “Trigger” → “Trigger”.

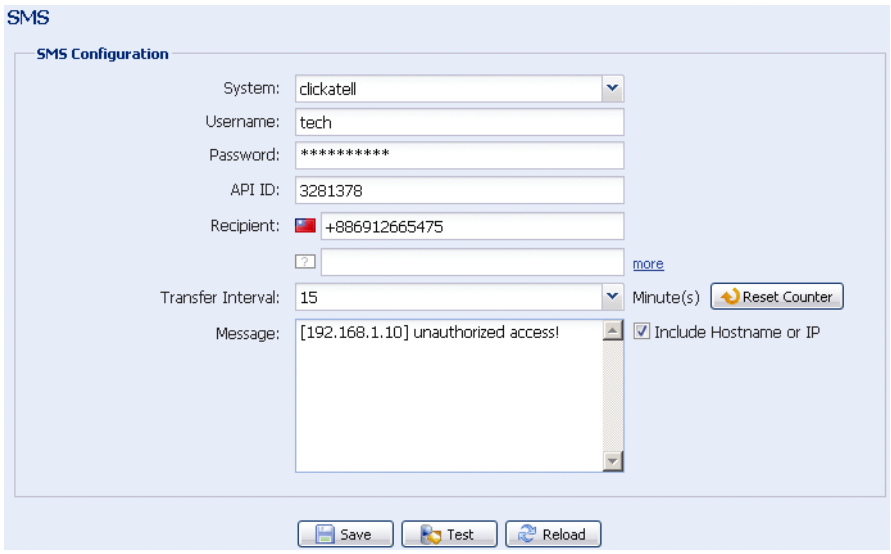


Function	Description
SMTP Server	Enter the SMTP server address provided from your e-mail system supplier.
Port	Enter the port number provided from your e-mail system supplier. If this column is left blank, the e-mail server will use port 25 to send e-mails.
Mail From	Enter the name of the sender.
SSL Encryption	Select “Yes” if your e-mail server is using SSL encryption to protect your e-mail content from unauthorized access.
Verify Password	Some mail servers are required to verify the password. Please enter the “user name” and “password”.
E-Mail Address List	Add the e-mail address(s) of the assigned recipient(s).
Test	When all information is entered, click “Test Mail” to try if the receipt.

3.2.7 SMS

Note: Before using this function, you need to apply an account and get an API ID from the mobile messaging company, such as Clickatell and EVERY8D. For details, please refer to "APPENDIX 4 API ID APPLICATION FOR SMS MESSAGING" at page 44.

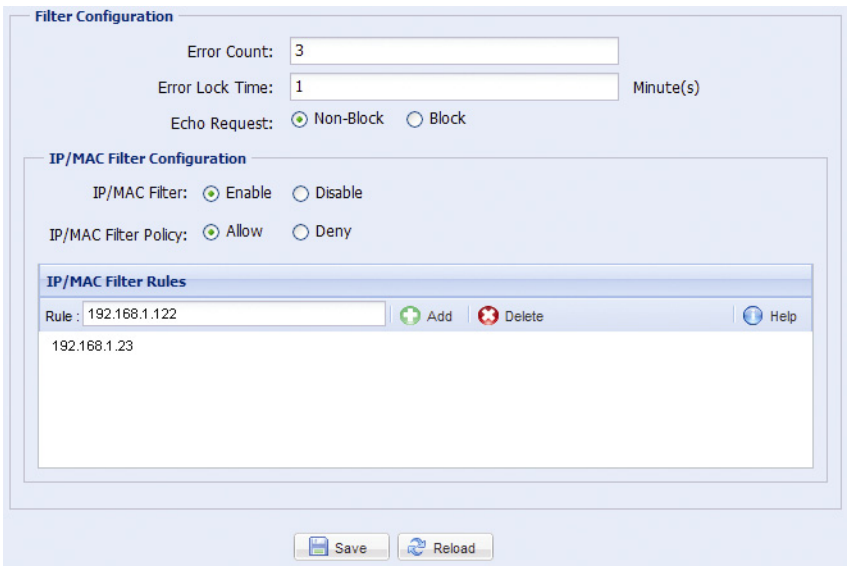
Enter the detailed information needed for text messaging, and click "Save" to confirm. The information you set here will be applied when "SMS" is selected in "General" → "Trigger".



Function	Description
System	The text messaging service provider is Clickatell.
User name / Password	Enter the account user name and password you created in Clickatell.
API ID	Enter the API ID you applied from Clickatell.
Recipient	Click "Add" to enter the phone number, including the country code, to receive the text message. Five sets of phone numbers are allowed.
Transfer Interval	Set the interval time in minutes between two-message sending. The options are 0, 15, 30 & 60.
Reset Counter	Click to restart the text messaging, and the SMS will be sent after the specified time interval since you click this button.
Message	Enter the text content (up to 70 characters) you want to send with the text message.
Test	To know whether your SMS setting is correct, click this button to immediately send a SMS to your phone. Note: This testing is not free and you will be charged for SMS sending base on your local rate.

3.2.8 Filter

Choose to permit or block the IP address(es) which can access this camera, and click “Save” to confirm.



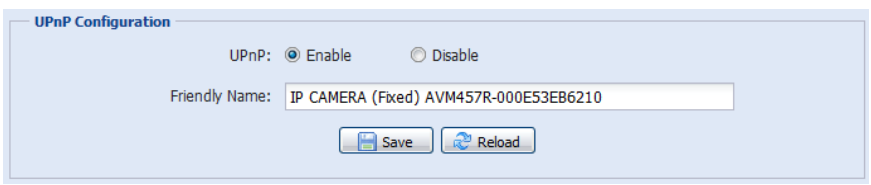
Function	Description
■ **Filter Configuration**	
Error Count	Set the maximum count for login failure. When the maximum count is reached, the IP address trying to access the network camera will be locked.
Error Lock Time	Set the lock time in minutes when the maximum count of error login for an IP address is reached.
Echo Request	Select “Non-Block” to allow other users to use the ping command to detect the IP address of your network camera, or “Block” to deny the ping command request.
■ **IP/MAC Filter Configuration**	
IP/MAC Filter	Choose to enable or disable the filter function.
IP/MAC Filter Policy	If “Enable” is selected, choose whether you want to permit (Allow) or block (Deny) the IP address list below.
■ **IP/MAC Filter Rules**	
Rule	• To add an item to the IP address list, key in the IP address in “Rule”, and click “Add”. • To remove an existing item in the IP address list, click the item you want to remove, and click “Delete”.

3.2.9 UPnP / Bonjour

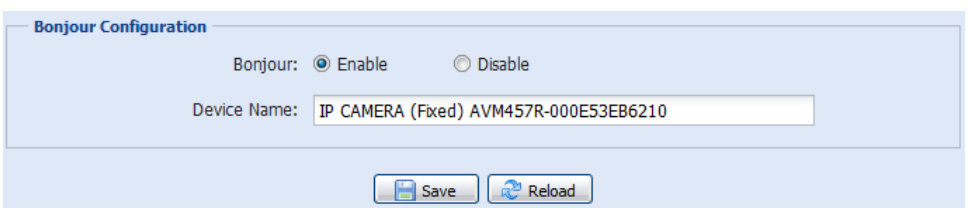
“UPnP” stands for “Universal Plug and Play”, which allows devices to connect seamlessly in the home and corporate environments and simplify installation of computer components, and is only suitable for Microsoft Windows-based operating system.

“Bonjour” functions the same as “UPnP”, but it’s only suitable for Apple Mac-based operating system.

➢ **UPnP**



➢ **Bonjour**



Check “Enable” to allow the network camera to be detected among devices within the same network area, and set the identification name of the camera in “Friendly name”.

When this function is activated, the other PC within the same domain as this camera will be able to search this camera in:

➢ “Network Neighbor” with the identification name set in “Friendly name” for Windows-based PC, or

➢ “” (finder) or “Bookmark” with the identification name set in “Device Name” for Mac-based PC.

Double-click it to quickly open the web browser for camera access.

Port Mapping (Available only in UPnP)

This function can eliminate the need to additionally access the router for port forwarding.

For details, please refer to “Advanced Network Setup” from www.surveillance-download.com/user/m359a.swf.

Note: Before using this function, make sure your router supports UPnP, and this function is enabled. If not, please access your router additionally for port forwarding.

When “Port Mapping” is set to “Enable”, the system will automatically assign an IP address or port number for you if no IP address or port number is entered.

Port Mapping Configuration
Port Mapping: Enable Disable
Your IP-Camera is accessible from the other side of the router using the following URL:
http://60.248.97.4:80 or https://60.248.97.4:59207.
Router IP: (LAN IP Address)
HTTP Port: 80
HTTPS Port: 59207
*If set to blank or 0, a port number will be set automatically upon enable.
Save
Reload

Note: When the configurations are saved successfully, you’ll see a message indicating the IP address and port number assigned to this network camera.

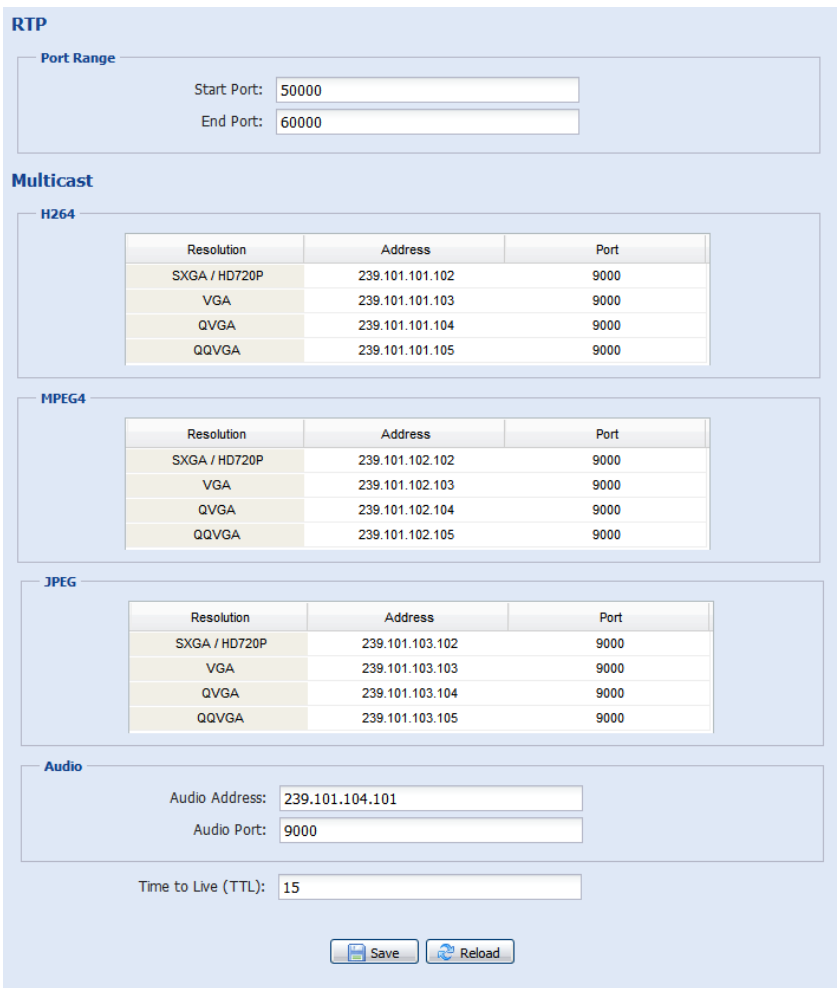
3.2.10 RTP

The Real-time Transport Protocol (RTP) is an Internet protocol standard to manage the real-time transmission of multimedia, such as VLC player.

The media player you want to use for remote access must support RTP transmission for this function to work normally.

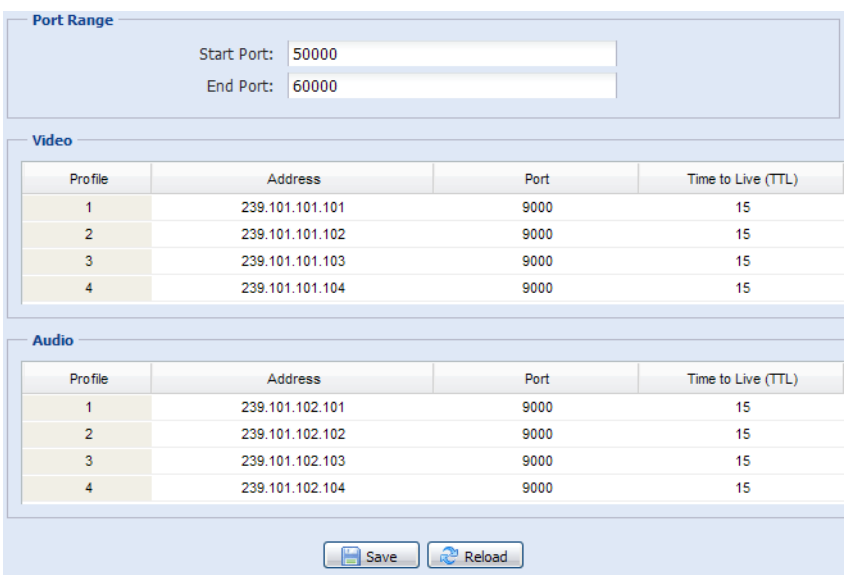
Note: When you’re about to end the remote access, please press the stop button on your media player first, and then close the program. This is to ensure the server receives the stop command, and also help to protect the server from redundant data transmission.

- Type A



Function	Description
■ **Port Range** The port range used by RTP is limited, and preserving 100 ports between the start port and end port is necessary.	
Start Port	The range of the start port is 1024 ~ 65434.
End Port	The range of the end port is 1124 ~ 65534.
■ **Multicast**	
Address and port for H264 / MPEG4 / JPEG transmission	Set a specific address and port for multicast of each stream format (H264/ MPEG4/ JPEG). The range of the address is limited between 224.0.0.1 ~ 239.255.255.255. The port for multicast must be an even number.
Address and port for audio transmission	Set a specific address and port for multicast of audio. The range of the address is limited between 224.0.0.1 ~ 239.255.255.255. The port for multicast must be an even number.
Time to Live (TTL)	The range of Time to Live of the package is between 1 ~ 255. As soon as Time to Live of the package is 0, it will be dropped.

➢ Type B



Function	Description
■ **Port Range** The port range used by RTP is limited, and preserving 100 ports between the start port and end port is necessary.	
Start Port	The range of the start port is 1024 ~ 65434.
End Port	The range of the end port is 1124 ~ 65534.
■ **Video**	
Address and port for video transmission	Set a specific address and port for multicast of profile 1 ~ 4. The range of the address is limited between 224.0.0.1 ~ 239.255.255.255. The port for multicast must be an even number.
■ **Audio***	
Address and port for audio transmission	Set a specific address and port for multicast of audio. The range of the address is limited between 224.0.0.1 ~ 239.255.255.255. The port for multicast must be an even number.

**For selected models only*

3.2.11 SNMP

SNMP, Simple Network Management Protocol, is used to facilitate the exchange of management information between network-attached devices, and network administrators could use it to monitor those devices.

The SNMP consists of three basic components:

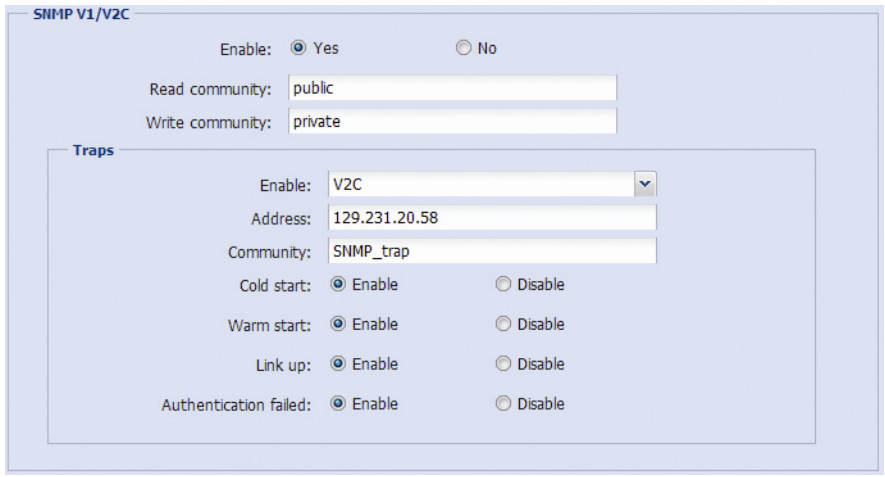
- ***Network-management systems (NMSs)*** to monitor and control the managed devices.
- ***Managed devices*** as network nodes to save all network and management information, such as routers, access servers, switches, bridges, hubs, etc.
- ***Agents*** as network management software modules on managed devices to provide the status of managed devices to NMSs.

Note: Before configuring SNMP settings, make sure your NMS is enabled first.

Enable SNMP V1 / V2C

Select “Yes” to enable this function, and enter the names of “Read community” and “Write community” based on your NMS configurations.

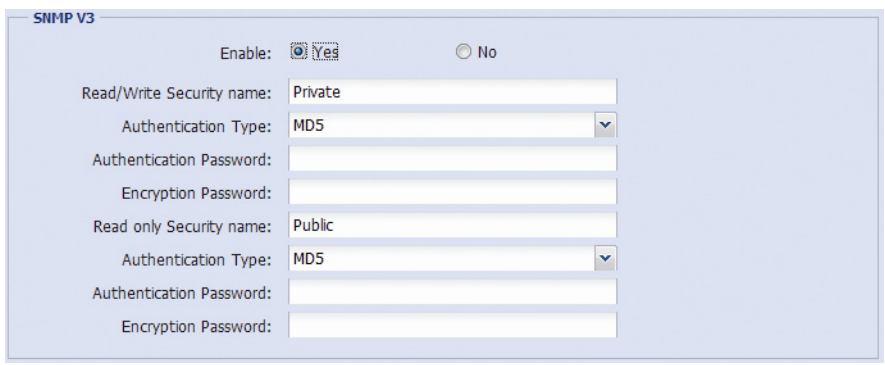
To enable “Traps” to notify the management station of important events, choose “V1” or “V2C” in “Enable”, enter the address and community name, and select the event type(s) needed.



Enable SNMP V3

SNMP V3 has a higher security level than SNMP V1 / V2C to allow configuring the authentication password and encryption password.

Choose “Read/Write Security name” or “Read only Security name” based on your NMS settings, and enter the community name. Then, select the authentication type from “MD5” or “SHA”, and enter the password for authentication and encryption. The password length is from 8 to 31 characters.

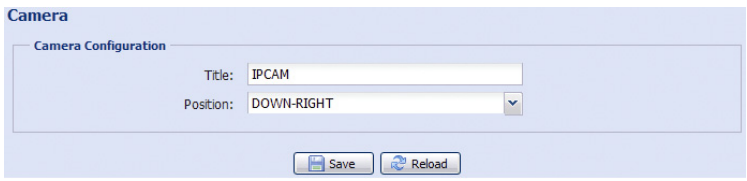


3.3 Camera

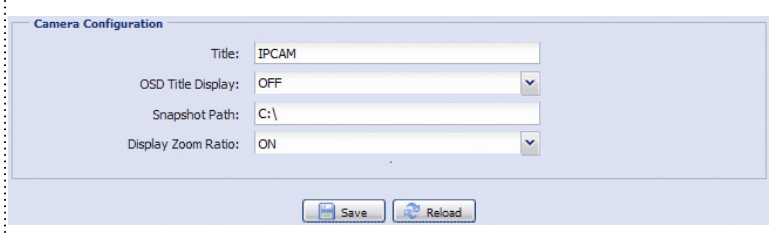
3.3.1 Camera

Rename the camera, and change the place where the camera name is shown on the screen, UP-LEFT / UP-RIGHT / DOWN-LEFT / DOWN-RIGHT. "Snapshot Path" is used to specify the path to save snapshot files.

Type A



Type B



3.3.2 Video

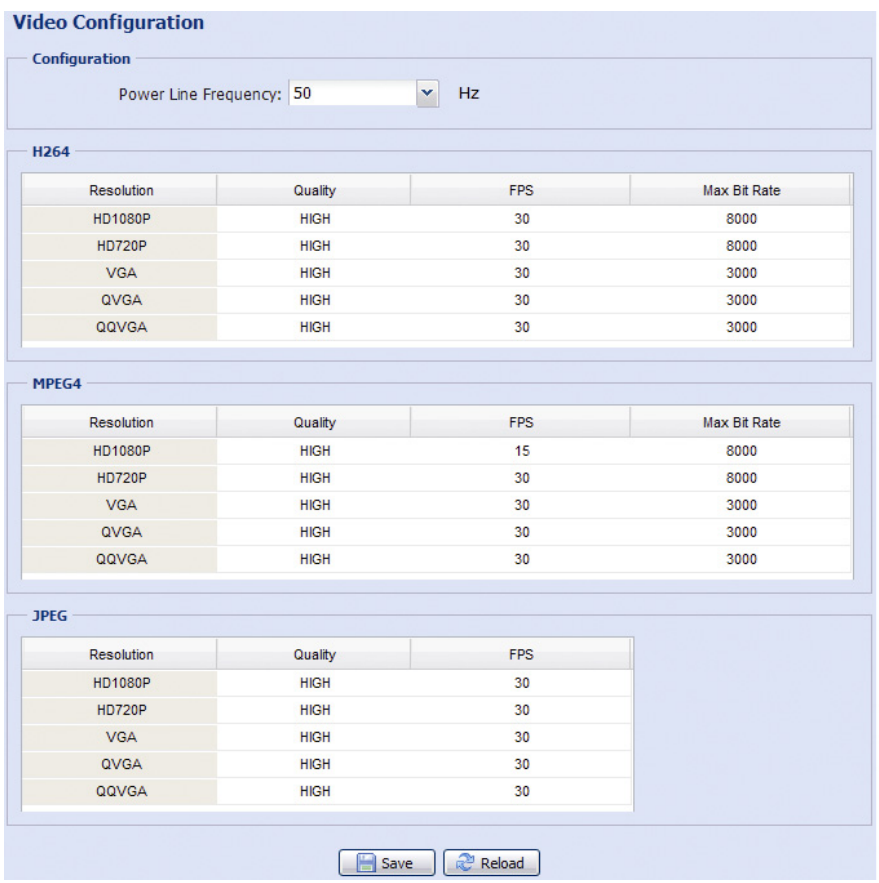
Adjust video-related settings in different video format.

- "Quality" is related to image clearness.
- "FPS" is related to the fluency of the video. The more the FPS, the more fluent the video.
- "Max Bit Rate" is the maximum limitation of data transmission in the selected image format and resolution.

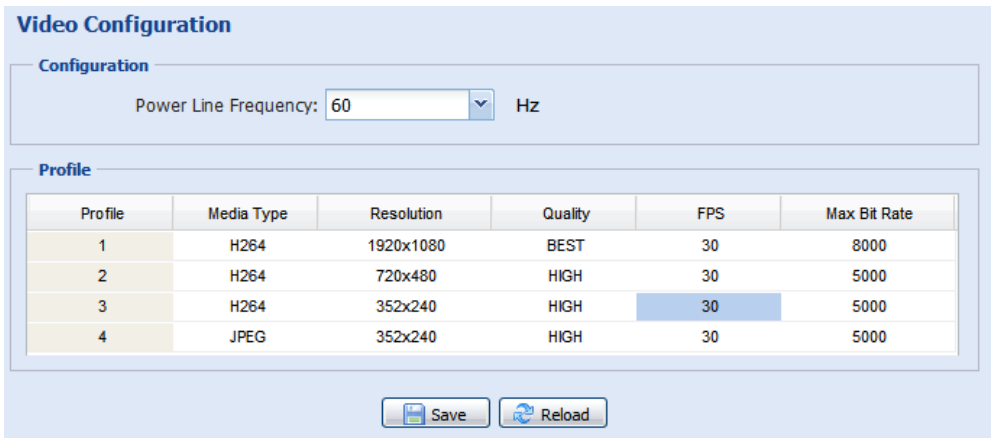
Take 2 megapixel model as an example below. For 1.3 megapixel model, please refer to its actual display.

Note: QQVGA is for mobile surveillance only.

➢ Type A:

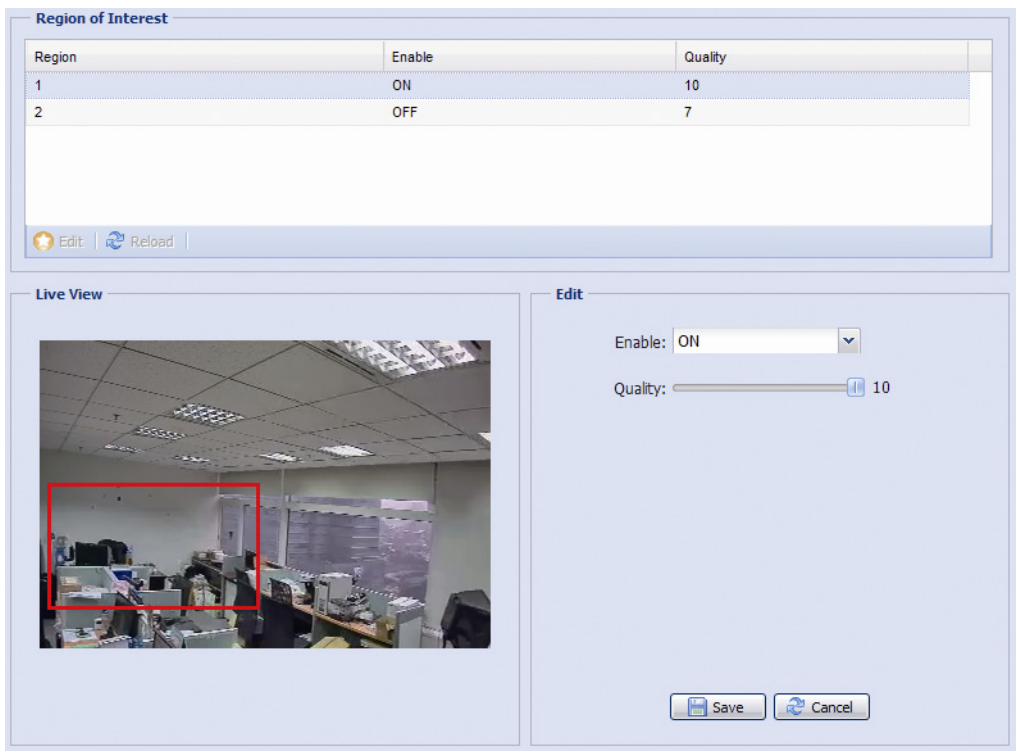


➢ Type B:


Video Configuration
Configuration
Power Line Frequency: 60 Hz
Profile
Profile | Media Type | Resolution | Quality | FPS | Max Bit Rate
1 | H264 | 1920x1080 | BEST | 30 | 8000
2 | H264 | 720x480 | HIGH | 30 | 5000
3 | H264 | 352x240 | HIGH | 30 | 5000
4 | JPEG | 352x240 | HIGH | 30 | 5000
Save
Reload

3.3.3 ROI (For selected models only)

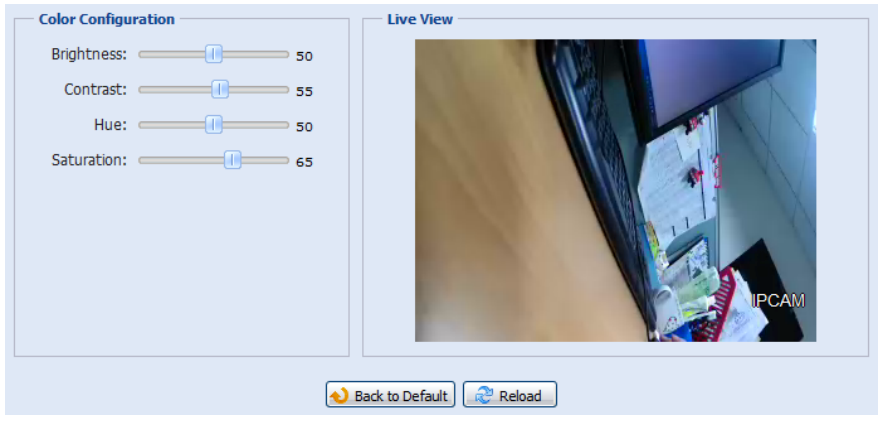
ROI, Region of Interest, is used to reinforce the image quality of the selected area(s). Users could specify two areas in the camera view.



3.3.4 Color

Adjust the color performance from Brightness, Contract, Saturation, and Hue (for selected models only). Click and drag the slider to preview the color change on the right side of ths page and adjust the image color.

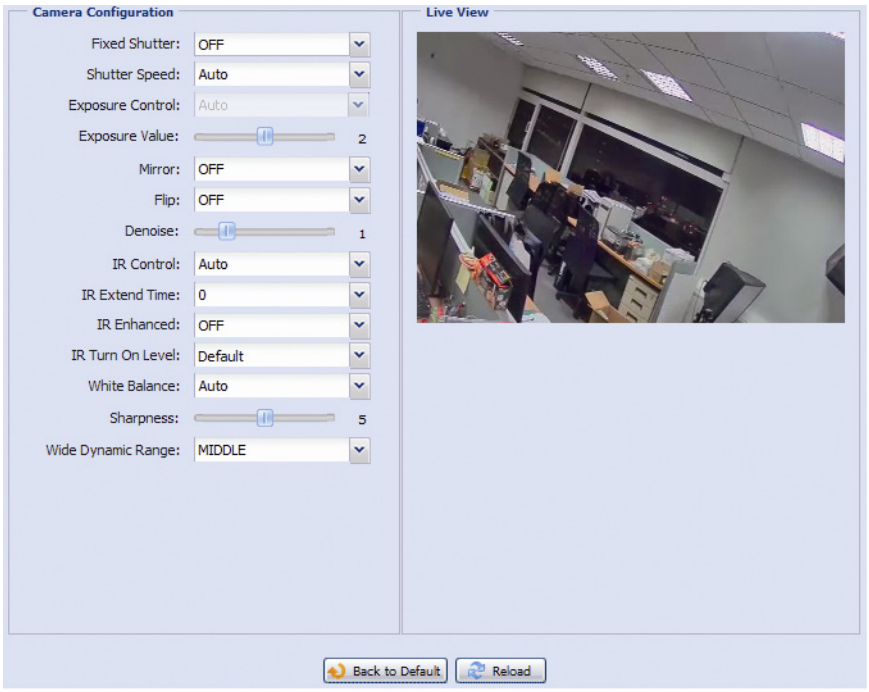
To restore the default values, click “Back to Default”.



3.3.5 Advanced

Adjust the camera parameters if necessary.

Note: The functions available depend on the model number used.

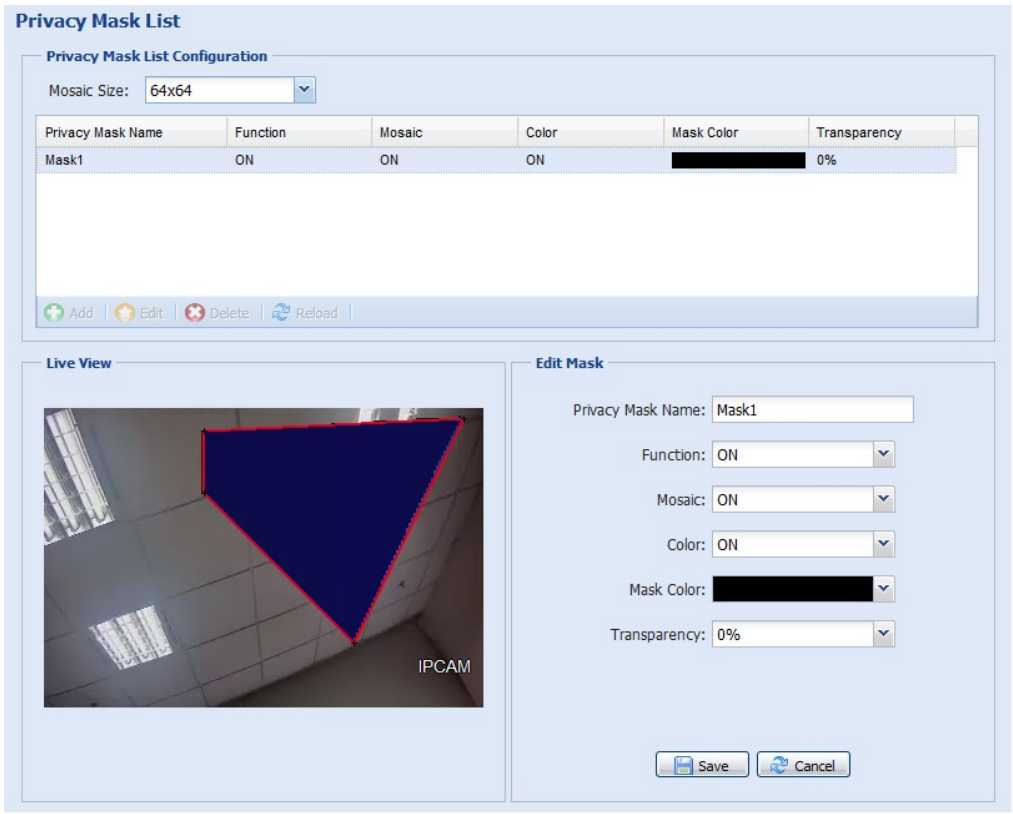


Item	Description
Fixed Shutter*	Shutter Speed is a function that can adjust the duration of the electronic shutter to produce optimum image quality. Select the shutter speed suitable for your environment.
Shutter Speed	Select the shutter speed suitable for your environment. A slower shutter speed in dark conditions will help to produce a brighter image, but will produce fewer frames per second, which may cause images to get blurry during motion. ● When “Auto” is selected, the iris mode is “AES”. ● When a certain speed is selected, the iris mode is switched to “AI”, and the image brightness is available to adjust from “IRIS”.
Exposure Control*	This function is used to synchronize the shutter time to the fluorescent light to suppress image flickering.
Exposure Value*	Drag the slider to adjust the exposure level from 0 ~ 4.
Back light*	It is the function to adjust the image to compensate for an area that is overpowered by brightness because of excessive light. The image will be properly exposed for clearness. Select to activate (ON) or disable (OFF) this function. Note: This function is available only in the day mode.
Mirror	Select “ON” to rotate the images horizontally based on your installation situation when necessary.
Flip	Select “ON” to rotate the image 180° when necessary.
De-noise*	Click and drag the slider to adjust the level from 0 ~ 10 to decrease the noise shown in the dark environment.
IR Control	Select “Auto” to automatically enable IR LEDs at night or in the dark environment, “On” to always enable IR LEDs, or “OFF” to disable this function.
IR Enhanced	Select “On” to enhance IR LEDs performance.
IR Turn On Level	Select the level for IR light to activate.
White Balance	Process the current image to retain color balance over a color temperature range. The options are: Auto, 2500K, 3200K, 4200K, 5800K & 9500K.
Sharpness	Sharpness enhances the clarity of image detail by adjusting the aperture and sharpening the edges in the pictures. Hold and drag the slider to adjust the level of sharpness. The higher the value, the sharper the image.
Wide Dynamic Range*	Wide Dynamic Range (WDR) is used when users need to increase image recognizability in overexposure and dark areas. The options are: LOW / MIDDLE / HIGH / OFF

**Selected models only*

3.3.6 Privacy Mask (For selected models only)

You can cover certain areas on the camera image with privacy masks.

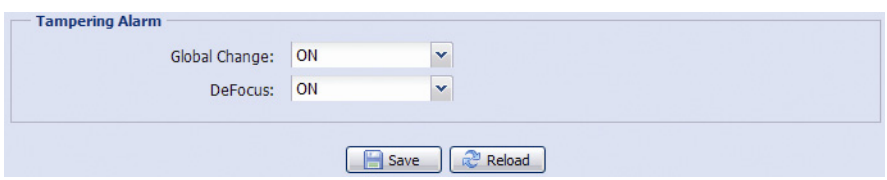


Item	Description
Mosaic Size	Choose the mosaic size of the privacy mask. The options are: 8×8, 32×32, and 64×64.
Privacy Mask Name	Name your privacy mask.
Function	Select “On” to enable the privacy mask function.
Mosaic	Select “ON” to have the mosaic effect.
Color	Select “ON” to color the privacy mask. In the meantime, you can’t see the mosaic effect.
Mask Color	Select the color for the privacy mask.
Transparency	Select the transparency for your privacy mask. The options are: 0%, 25%, 50%, and 100%.

3.4 VA (For selected models only)

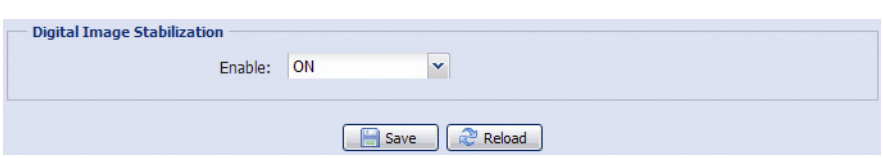
3.4.1 TA

TA, tampering alarm, should be used with the mini-guard control switch for alarm system integration. For more details, please check with your distributor or installer.



3.4.2 DIS

DIS, digital image stabilization, is used to reduce blurring associated with the motion of a camera during exposure.



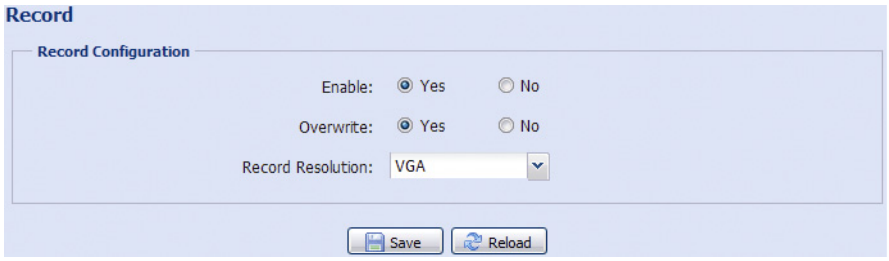
3.5 Record

3.5.1 Record

In “Record Configuration”, you can:

- Enable or disable the alarm record function. When “Enable” is set to “No”, the alarm record function is disabled even if you enable it in other configuration pages.
- Select if the data should be overwritten when the memory storage is full.
- Select the video resolution for event recording.

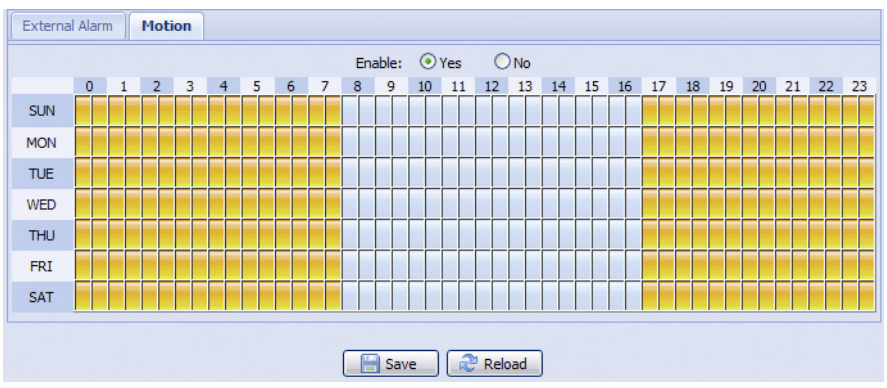
Note: The higher resolution you choose, the more accuracy and higher image quality the recording will be, but the faster the memory storage is consumed and become full



3.5.2 Record Timer

To schedule alarm and motion recording, enable it, and select the day and time for recording.

Note: The timer must be enabled for the record function to work properly.



3.6 Storage

3.6.1 Memory

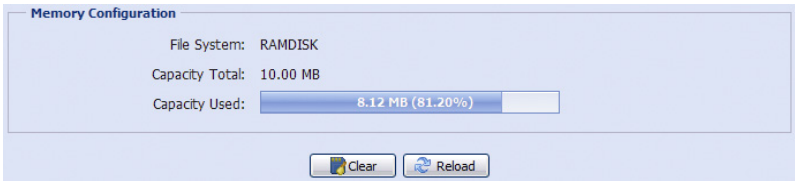
In “Memory”, you can check the remaining capacity for recording, or clear all recorded data saved if needed.

Note: The recorded data will be removed also when you reset or reboot this camera.

Note: To know how and where to insert a micro SD card, please refer to the installation guide. To know the compatible list of micro SD cards, please refer to “APPENDIX 7 MICRO SD CARD COMPATIBLE LIST” at page 48.

Note: To save more recorded data, it’s recommended to use this camera with the compatible NVR.

Note: To know the total recording time per recording resolution, please refer to “APPENDIX 6 RECORDING TIME TABLE” at page 47.

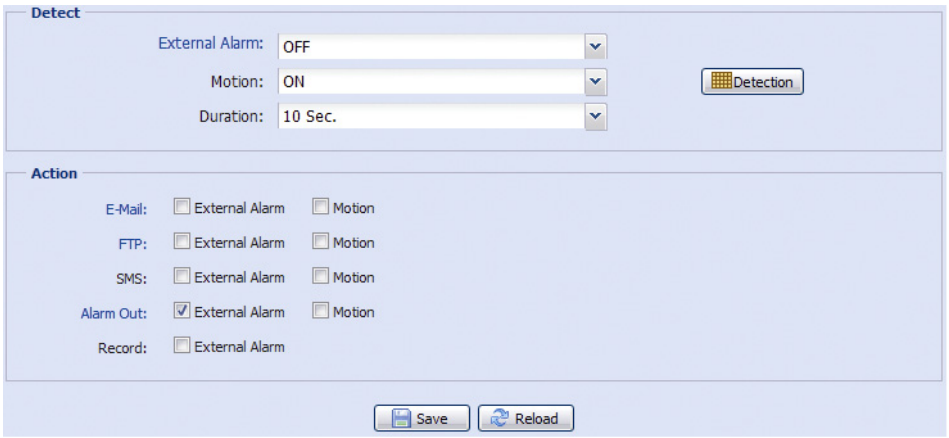


The total capacity may vary depending on different models. Please check the actual display of your model.

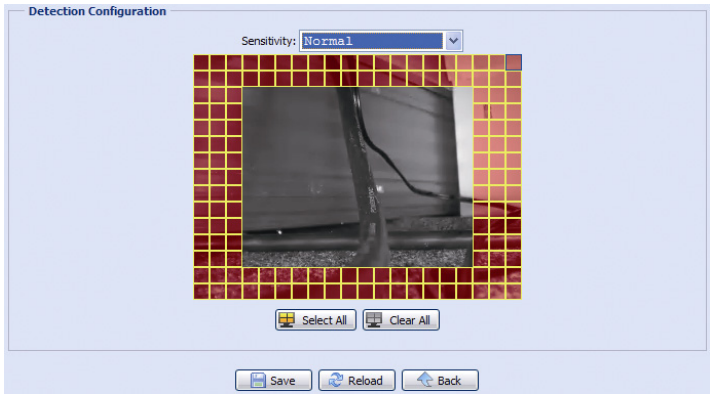
3.7 Trigger

3.7.1 Trigger

You can configure how this camera reacts when there's an alarm or motion event.



◆ Detect

Item	Description
External Alarm	Enable or disable detection from external alarm-in device, and click the title "External Alarm" (in blue) to set "N.O." or "N.C." depending on the configuration of your alarm-in device.
Motion	Enable or disable motion detection. *Motion detection is not supported when the stream format is Motion JPEG.*
	When "Enable" is selected, click "Detection" to enter the motion detection area setting page as follows: 
	Sensitivity: Set the detection sensitivity from the drop-down list: High, Normal or Low.
	Area Setting: Set the motion detection area by selecting the area grids with your mouse. Pink grids represent the area that is not being detected while the transparent grids are the area under detection. You can set multiple areas under detection. Click "Clear All" to set the whole area undetected. Click "Select All" to set the whole area under detection.
Duration	Set the duration time for trigger recording (5 / 10 / 20 / 40 seconds).

◆ Action

Here defines how the camera delivers alerts to you for any event.

Item	Description
E-Mail	Select the event type you want to receive E-mail notifications when it occurs. Then, click the title "E-Mail" (in blue) to configure the media type (H264 / JPEG / MPEG4), file format (AVC / AVI), and record time (1 ~ 5 seconds) for the event video clip. The camera will send the captured video clip to the E-mail address(s) you assigned in "Network" → "Mail" once the selected event type occurs.
FTP	Select the event type you want to receive FTP notifications when it occurs. Then, click the title "FTP" (in blue) to configure the media type (H264 / JPEG / MPEG4), file format (AVC / AVI), and record time (1 ~ 5 seconds) for the event video clip. The camera will upload the captured video clip to the FTP site you assigned in "Network" → "FTP" once the selected event type occurs.
SMS*	Select the event type you want to receive a text message when it occurs. The camera will send a text message to the mobile phone number you assigned in "Network" → "SMS" once the selected event type occurs.
Alarm Out	Select the event type you want to trigger the alarm-out device to work when it occurs. Then, click the title "Alarm Out" (in blue) to configure the trigger rule (LOW / HIGH).
Record	Select the event type you want to enable event recording when it occurs.

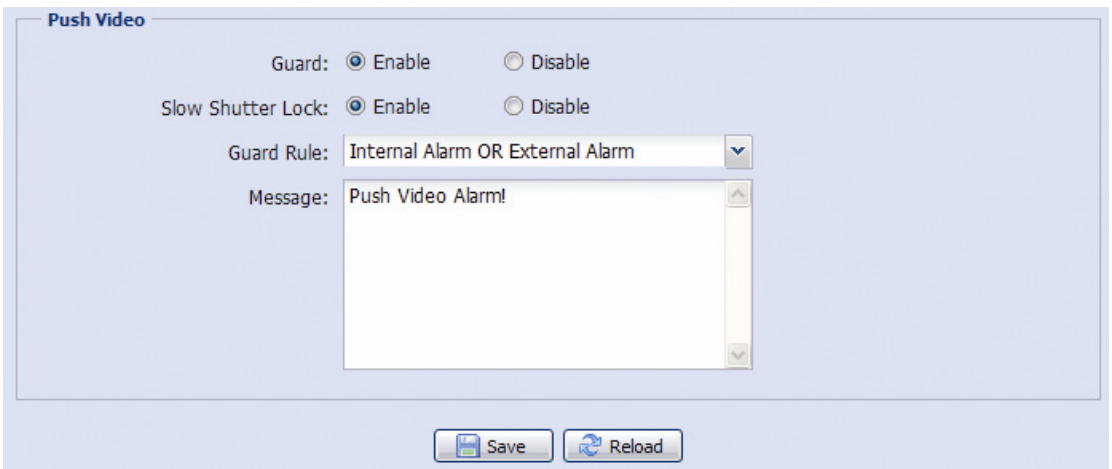
**Selected models only*

3.7.2 Push Video

"Push Video" is an active notification system integrated with smart phones. Users are able to receive alarm notifications within 5 seconds after event occurrence, check what happened with video playback, and take actions immediately.

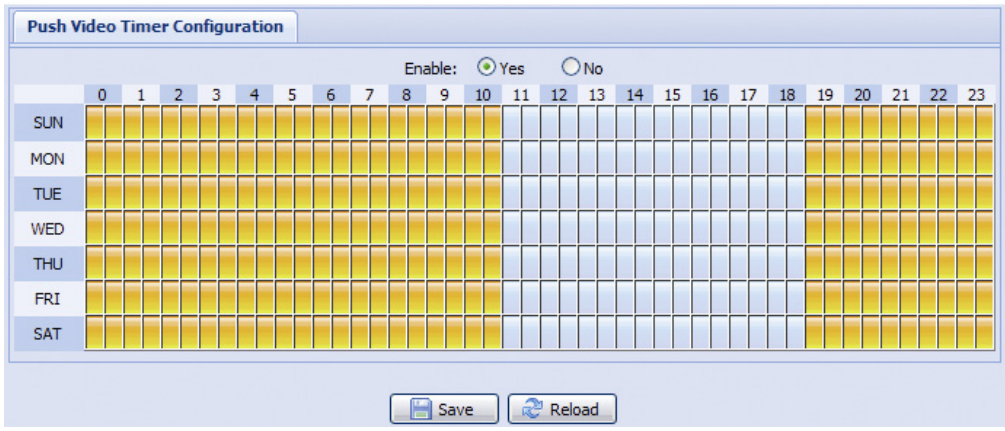
Note: For Push Video to work properly, make sure the record function is on in "Record" → "Record", and the record timer for the external alarm is on in "Record" → "Record Timer".

Note: When the camera is configured, go to your smart phone and enable "Push Video". For details, please refer to "APPENDIX 8 ENABLE PUSH VIDEO" at page 49.



Item	Description
Guard	Select to enable or disable Push Video. This function can also be enabled from your iPhone or Android mobile devices. *When this function is enabled, the image resolution is fixed to "VGA".*
Slow Shutter Lock	Select to fix the slow shutter level to level 2 (Enable) or remain the current slow shutter level (Disable) when Push Video is enabled. When this function is enabled, it could ensure Push Video recording to get clear images when the environment is dark. This function is set to "Enable" by default.
Guard Rule	Select the rule to enable Push Video from "External Alarm".
Message	Define the context when you receive the Push Video message on your iPhone or Android mobile device. Up to 28 characters are allowed.

To configure Push video to enable in the specified time, select “Yes” to enable the timer function, and select the time you want to enable.



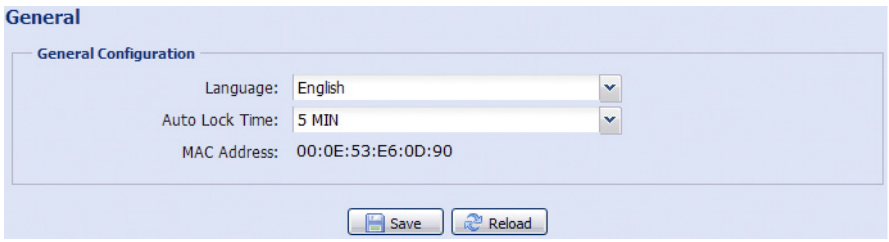
3.8 General

3.8.1 General

To change the language of UI interface, select from the drop-down list in “Language”.

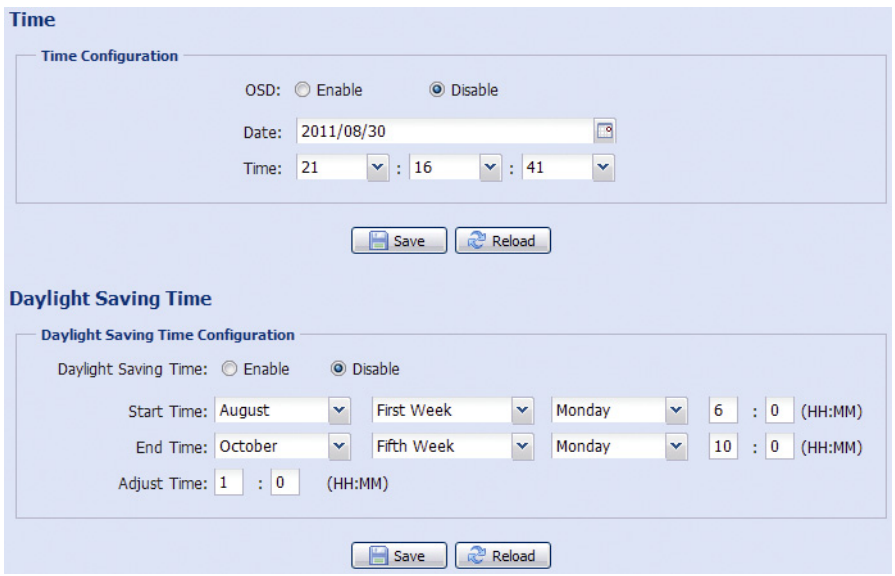
To lock camera access when it’s not used after the specified time, select “5 MIN”, “15 MIN” or “30 MIN” from the drop-down list of “Auto Lock Time”, or select “NEVER” to disable this function.

Note: When the camera access is locked after the specified time, to resume camera access, please enter the password.



3.8.2 Time

Set daylight saving time and the current time, and click “Save” to confirm.

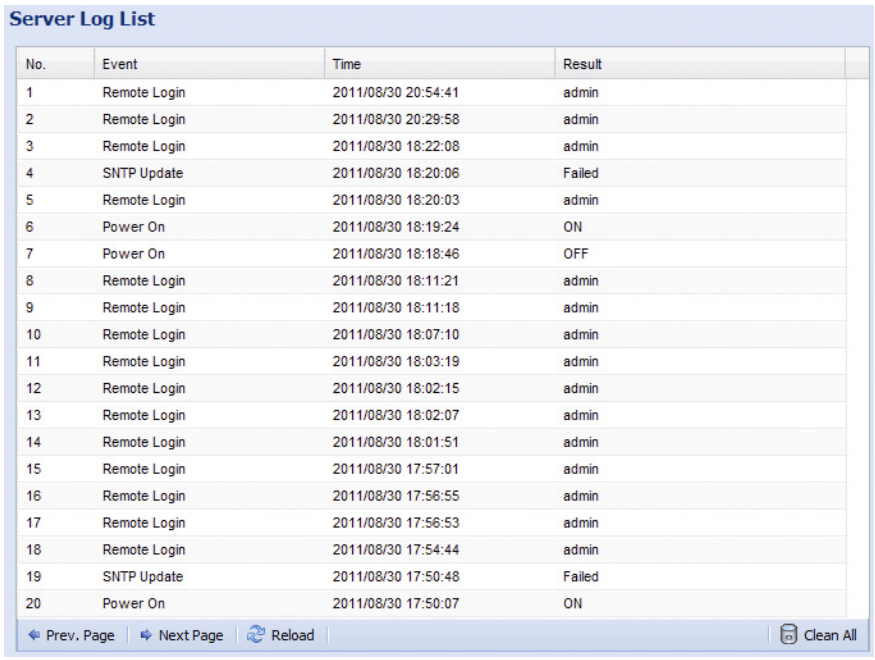


Function	Description
■ **Time Configuration**	
Date	Set the current date.
Time	Set the current time.
■ **Daylight Saving Time Configuration**	
Daylight Saving Time	Specify whether to use daylight saving time (Enable / Disable).
	If this function is enabled, set the time period (Start Time / End Time), and adjust the daylight saving time in hours (Adjust Time).

3.8.3 Server Log

To quickly search the system logs you want by event type, click “Prev. Page” or “Next Page” to find the logs you want, or check the event type(s) and click “Reload” to start searching.

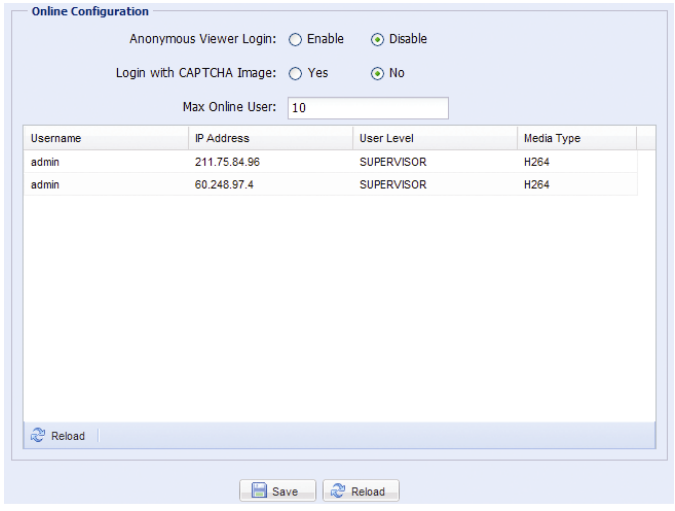
To clear all system event logs, click “Clear All”.


Server Log List
No. Event Time Result
1 Remote Login 2011/08/30 20:54:41 admin
2 Remote Login 2011/08/30 20:29:58 admin
3 Remote Login 2011/08/30 18:22:08 admin
4 SNTP Update 2011/08/30 18:20:06 Failed
5 Remote Login 2011/08/30 18:20:03 admin
6 Power On 2011/08/30 18:19:24 ON
7 Power On 2011/08/30 18:18:46 OFF
8 Remote Login 2011/08/30 18:11:21 admin
9 Remote Login 2011/08/30 18:11:18 admin
10 Remote Login 2011/08/30 18:07:10 admin
11 Remote Login 2011/08/30 18:03:19 admin
12 Remote Login 2011/08/30 18:02:15 admin
13 Remote Login 2011/08/30 18:02:07 admin
14 Remote Login 2011/08/30 18:01:51 admin
15 Remote Login 2011/08/30 17:57:01 admin
16 Remote Login 2011/08/30 17:56:55 admin
17 Remote Login 2011/08/30 17:56:53 admin
18 Remote Login 2011/08/30 17:54:44 admin
19 SNTP Update 2011/08/30 17:50:48 Failed
20 Power On 2011/08/30 17:50:07 ON
Prev. Page
Next Page
Reload
Clean All

3.8.4 Online

You can check the current online user(s) with respective online information. To refresh the list, click “Reload”.

- To allow anonymous login, select “Enable” in “Anonymous Viewer Login”.
- To disable image code verification at login, select “No” in “Login with CAPTCHA Image”.

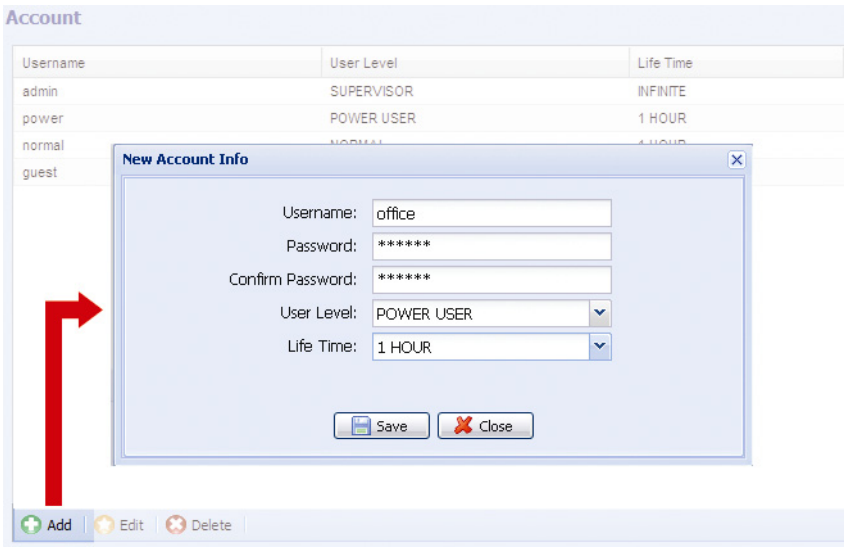


3.8.5 Account

You can create a new account with different user access privilege, or delete or modify an existing account setting.

How to create a new account

Step1: Click “New”, and fill in the following columns.



Column	Description
User Name	Set a user name that will be used for camera access. The user name allows up to 16 alphanumeric characters.
Password	Set the password that will be used for remote login. The password allows up to 16 alphanumeric characters.
Confirm Password	Enter the password again to confirm.
User Level	Set the security level of an account to give the permission to control different functions. There are four user levels: SUPERVISOR, POWER USER, NORMAL USER and GUEST.
Life Time	Select how long this account is allowed to stay online (1 MIN / 5 MIN / 10 MIN / 1 HOUR / 1 DAY / INFINITE)

Step2: Then, click “Save” to save your setting and create a new account.

How to modify or delete an existing account

Step1: Select the account you want to modify or delete.

Step2: To modify the account, click “Edit” to change the settings, and click “Save”.
To remove the account, click “Delete”.

Note: It’s not allowed to remove an account when there’s only one account in the account list.

3.8.6 Google Maps

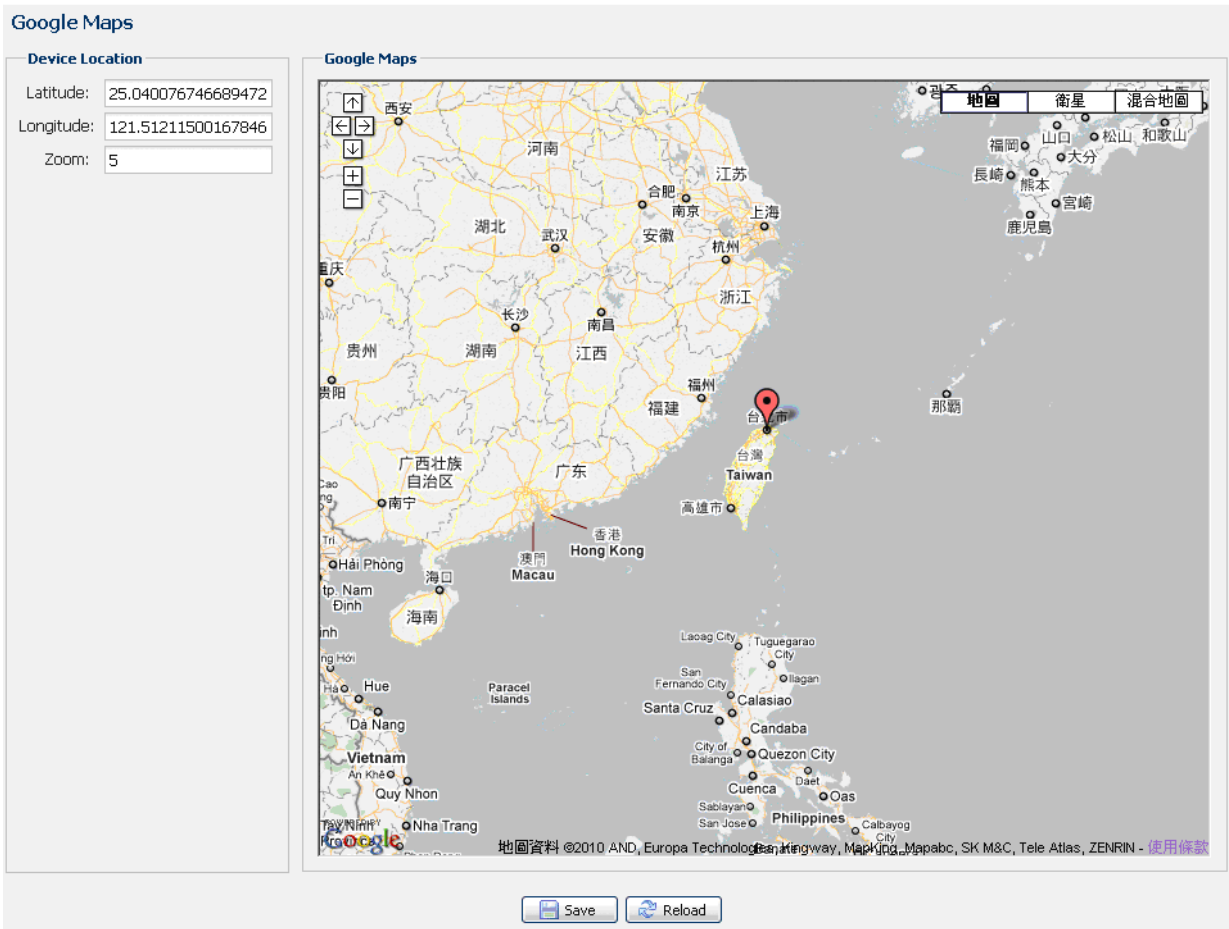
This function is used to let you know where the network camera is.

The system will prompt you to apply a Google Maps Key if your access is denied. Please follow the instructions below when you’re denied:

Step1: Click “Sign up for a Google Maps key” to enter the application page.

Step2: Check the terms and conditions, and enter the IP address of the network camera. Then, click “Generate API Key”.

Step3: Copy the generated API key, and click “Update Google Maps Key” on the web browser to paste it.



3.8.7 Maintenance

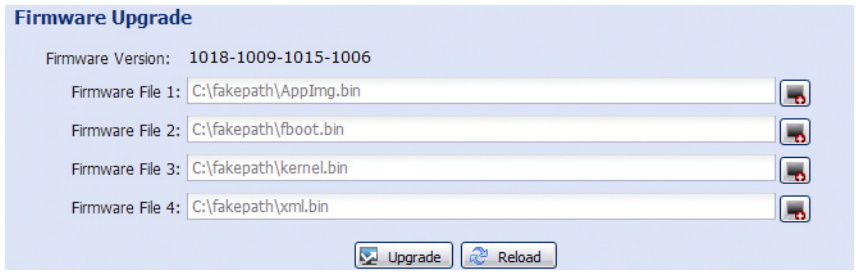
Firmware Upgrade

This function is used when users need to upgrade the camera for function scalability.

Note: Before using this function, make sure you have the correct upgrade files provided by your installer or distributor.

Note: The event videos saved in the camera will be removed after firmware upgrade. Make sure you've copied important events to your PC before firmware upgrade.

Step1: Select "" to browse to where you save the upgrade files, and select them one by one until all files are selected (up to four files).



Step2: Select "Upgrade" to start system upgrading.

Note: You'll be prompted to keep current configurations. It's recommended to keep them, or all configurations will be restored to default values after upgrade.

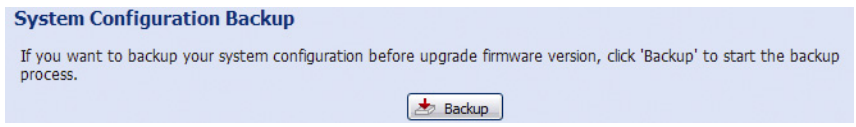
Note: It takes a few minutes to finish the upgrade process. Do not disconnect the power during firmware upgrade, or the upgrade may be failed. The camera will reboot after the upgrade.

System Configuration Backup

This function is used to copy your system configuration to a “System.bin” file.

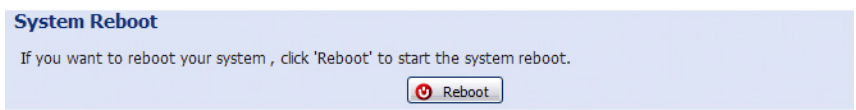
You may import the same system configuration to another camera, or restore your system configuration when the camera is reset to default values.

Select “System.bin” in “Firmware Upgrade”, and select “Upgrade” to import the system configuration.


System Configuration Backup
If you want to backup your system configuration before upgrade firmware version, click 'Backup' to start the backup process.
Backup

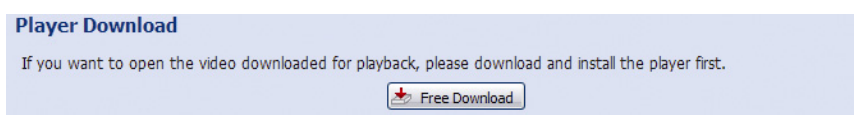
System Reboot

Select “Reboot” to restart your camera if needed.



Player Download

To see the event video clips downloaded to your PC, you need to first install our own video player in your PC. Select “Free Download” to download the video player, and double click the file to install it.


Player Download
If you want to open the video downloaded for playback, please download and install the player first.
Free Download

APPENDIX 1 PRODUCT SPECIFICATIONS

	Model 1	**Model 2**
■ Network		
LAN Port	YES	
LAN Speed	10/100 Based-T Ethernet	
Supported Protocols	DDNS, PPPoE, DHCP, NTP, SNTP, TCP/IP, ICMP, SMTP, FTP, HTTP, RTP, RTSP, RTCP,IPv4, Bonjour, UPnP, DNS,UDP,IGMP, QoS	
Number of Online Users	10	
ONVIF Compatible	YES	
Security	(1) Multiple user access levels with password (2) IP address filtering (3) Digest authentication	
Remote Access	(1) Internet Explorer on Windows operating system (2) 16CH Video Viewer on Windows & MAC operating system (3) EagleEyes on iPhone, iPad & Android mobile devices	
■ Video		
Video Compression	H.264 / MPEG4 / MJPEG	
Resolution	1080P, SXGA, 720P, VGA, QVGA	SXGA, 720P, VGA, QVGA
Frame Rate	30fps	
Multiple Video Streaming	4 (H.264, MJPEG, MPEG4)	
■ General		
Image Sensor	1/2.9" SONY CMOS image sensor	1/4" SONY CMOS image sensor
Min Illumination	1 Lux / F1.4, 0 Lux (LED ON)	
S/N Ratio	More than 48dB (AGC off)	
Electronic Shutter	1/2 to 1/10,000 sec	
Lens	f2.8 ~ 12mm / F1.4 ~ F2.8	
Viewing Angle	Wide: 109° (Horizontal) / 76° (Vertical) / 116° (Diagonal) Tele: 24° (Horizontal) / 13.5° (Vertical) / 27° (Diagonal)	Wide: 66° (Horizontal) / 52° (Vertical) / 90° (Diagonal) Tele: 16° (Horizontal) / 10° (Vertical) / 22° (Diagonal)
IR LED	2 Units	
IR Effective Range **	Default : up to 25 meters IR Enhanced Mode : up to 35 meters	
IR Shift	YES	
IRIS Mode	AES	
White Balance	ATW	
AGC	Auto	
WDR	NO	
POE (Power-over-Ethernet)	YES (IEEE 802.3af)	
External Alarm I/O	YES (1 input / 1 output)	
Micro SD Card Slot	YES	
Heater	NO	
IP Rating	IP66	
Operating Temperature	-20℃~40℃	
Power Source (±10%)	12V / 1.5A	
Power Consumption (±10%)	PoE & PoN: 11.8W; DC Adapter: 9.5W (IR On)	PoE & PoN: 13.8W; DC Adapter: 11W (IR On)
■ Others		
Mobile Surveillance	iPad / iPhone / Android mobile device	
Event Notification	FTP / Email / SMS	
Digital Pan / Tilt / Zoom	YES	
Motion Detection	YES	
RTC (real-time clock)	YES	
Minimum Web Browsing Requirements	• Intel core i3 or higher, or equivalent AMD • 2GB RAM • AGP graphics card, Direct Draw, 32MB RAM • Windows 7, Vista & XP, DirectX 9.0 or later • Internet Explorer 7.x or later	

* The specifications are subject to change without notice. ** Dimensional tolerance: ± 5mm

	Model 3	**Model 4**
■ Network		
LAN Port	YES	
LAN Speed	10/100 Based-T Ethernet	
Supported Protocols	DDNS, PPPoE, DHCP, NTP, SNTP, TCP/IP, ICMP, SMTP, FTP, HTTP, RTP, RTSP, RTCP,IPv4, Bonjour, UPnP, DNS,UDP,IGMP, QoS	
Number of Online Users	10	
ONVIF Compatible	YES (Profile S)	
Security	(1) Multiple user access levels with password (2) IP address filtering (3) Digest authentication	
Remote Access	(1) Internet Explorer on Windows operating system (2) 16CH Video Viewer on Windows & MAC operating system (3) EagleEyes on iPhone, iPad & Android mobile devices	
■ Video		
Video Compression	H.264 / MPEG4 / MJPEG	
Resolution	1080P, SXGA, 720P, VGA, QVGA	SXGA, 720P, VGA, QVGA
Frame Rate	30fps	
Multiple Video Streaming	4 (H.264, MJPEG, MPEG4)	
■ General		
Image Sensor	1/2.9” SONY CMOS image sensor	1/4” SONY CMOS image sensor
Min Illumination	1 Lux / F1.4, 0 Lux (LED ON)	
S/N Ratio	More than 48dB (AGC off)	
Electronic Shutter	1/2 to 1/10,000 sec	
Lens	f2.8 ~ 12mm / F1.4 ~ F2.8	
Viewing Angle	Wide: 109° (Horizontal) / 76° (Vertical) / 116° (Diagonal) Tele: 24° (Horizontal) / 13.5° (Vertical) / 27°(Diagonal)	Wide: 66° (Horizontal) / 52° (Vertical) / 90° (Diagonal) Tele: 16° (Horizontal) / 10° (Vertical) / 22°(Diagonal)
IR LED	2 Units	
IR Effective Range **	Default : up to 25 meters IR Enhanced Mode : up to 35 meters	
IR Shift	YES	
IRIS Mode	AES	
White Balance	ATW	
AGC	Auto	
WDR	NO	
POE (Power-over-Ethernet)	YES (IEEE 802.3at)	
External Alarm I/O	YES (1 input / 1 output)	
MicroSD Card Slot	YES	
Heater	YES	
IP Rating	IP66	
Operating Temperature	-40℃ ~ 40℃	
Power Source (±10%)	12V / 1.5A	
Current Consumption	PoE & PoN: 19.5W; DC Adapter: 16.6W (IR On)	PoE & PoN: 18.6W; DC Adapter: 15.8 (IR On)
■ Others		
Mobile Surveillance	iPad / iPhone / Android mobile device	
Event Notification	FTP / Email / SMS	
Digital Pan / Tilt / Zoom	YES	
Motion Detection	YES	
RTC (real-time clock)	YES	
Minimum Web Browsing Requirements	(3) Intel core i3 or higher, or equivalent AMD (4) 2GB RAM (5) AGP graphics card, Direct Draw, 32MB RAM • Windows 7, Vista & XP, DirectX 9.0 or later • Internet Explorer 7.x or later	

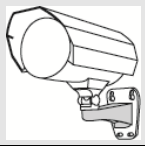
(6) The specifications are subject to change without notice.

** Dimensional tolerance: ± 5mm

	Model 5	**Model 6**
■ Network		
LAN Port	YES	
LAN Speed	10/100 Based-T Ethernet	
Supported Protocols	DDNS, PPPoE, DHCP, NTP, SNTP, TCP/IP, ICMP, SMTP, FTP, HTTP, RTP, RTSP, RTCP,IPv4, Bonjour, UpnP, DNS,UDP,IGMP, QoS	
Number of Online Users	10	
ONVIF Compatible	YES (Profile S)	
Security	(1) Multiple user access levels with password (2) IP address filtering (3) Digest authentication	
Remote Access	(1) Internet Explorer on Windows operating system (2) 16CH Video Viewer on Windows & MAC operating system (3) EagleEyes on iPhone, iPad & Android mobile devices	
■ Video		
Video Compression	H.264 (Main Profile) / MJPEG	
Resolution	1080P to CIF	
Frame Rate	30/25 fps	
Multiple Video Streaming	4 (H.264, MJPEG)	
■ General		
Image Sensor	1/2.8” CMOS image sensor	
Min Illumination	0.1 Lux / F1.4(Wide)~F2.8(Tele), 0 Lux (LED ON)	
S/N Ratio	More than 48dB (AGC off)	
Electronic Shutter	1/10,000 ~ 1/7.5 (Slow shutter)	
Lens	f2.8 ~ 12mm / F1.4 ~ F2.8	
Viewing Angle	Wide: 97.4° (Horizontal) / 58.1° (Vertical) / 111.7° (Diagonal) Tele: 27.1° (Horizontal) / 15.2° (Vertical) / 31.1°(Diagonal)	
IR LED	2 Units	
IR Effective Range**	Default : up to 25 meters IR Enhanced Mode : up to 35 meters	
IR Shift	YES	
Smart Light Control	YES	
IRIS Mode	AES	
White Balance	ATW	
AGC	Auto	
WDR	YES	
POE (Power-over-Ethernet)	YES (IEEE 802.3af)	YES (IEEE 802.3at)
External Alarm I/O	YES (1 input / 1 output)	
MicroSD Card Slot	YES	
Privacy Mask	YES	
Heater	NO	YES
IP Rating	IP66	
Operating Temperature	-20℃~40℃	-40℃~40℃
Power Source (±10%)	12V / 1A	12V / 2A
Power Consumption (±10%)	PoE & PoN: 10.5W; DC Adapter: 8.4W	PoE & PoN: 23.5W; DC Adapter: 20W
■ Others		
Mobile Surveillance	iOS & Android	
Event Notification	FTP / Email / SMS	
Digital Pan / Tilt / Zoom	YES	
Motion Detection	YES	
RTC (real-time clock)	YES	
Minimum Web Browsing Requirements	• Intel core i3 or higher, or equivalent AMD • 2GB RAM • AGP graphics card, Direct Draw, 32MB RAM • Windows 7, Vista & XP, DirectX 9.0 or later • Internet Explorer 7.x or later	

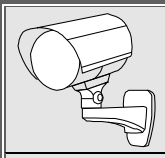
*The specifications are subject to change without notice

**Using IR enhanced mode and slow shutter speed, the distance can be extended even longer.

	Model 7	Model 8	Model 9
■ Network			
LAN Port	YES		
LAN Speed	10/100 Based-T Ethernet		
Supported Protocols	DDNS, PPPoE, DHCP, NTP, SNTP, TCP/IP, ICMP, SMTP, FTP, HTTP, RTP, RTSP, RTCP,IPv4, Bonjour, UPnP, DNS,UDP,IGMP, QoS		
Number of Online Users	10		
ONVIF Compatible	YES (Profile S)		
Security	(1) Multiple user access levels with password (2) IP address filtering (3) Digest authentication		
Remote Access	(1) Internet Explorer on Windows operating system (2) 16CH Video Viewer on Windows & MAC operating system (3) EagleEyes on iPhone, iPad & Android mobile devices		
■ Video			
Video Compression	H.264 (Main Profile) / MJPEG		
Resolution	1080P to CIF		
Frame Rate	30fps		
Multiple Video Streaming	4 (H.264, MJPEG)		
■ General			
Image Sensor	1/2.9" SONY CMOS image sensor	1/2.8" SONY CMOS image sensor	
Min Illumination	1 Lux / F2.0, 0 Lux (LED ON)	0.1 Lux / F2.0 (wide)~F2.8(Tele), 0 Lux (LED ON)	
S/N Ratio	More than 48dB (AGC off)		
Electronic Shutter	1/7.5 to 1/8000 sec	1/10,000 ~ 1/7.5 (Slow shutter)	
Lens	f6.0 ~ 60mm / F2.0 ~ 2.8 10X Optical Zoom, Auto Focus, Near focus limit 10cm (wide) or 80cm (tele) to infinity		
Viewing Angle	1X: 47.3° (Horizontal) x 27.5° (Vertical) x 53.5° (Diagonal) 10X: 5.3° (Horizontal) x 3.0° (Vertical) x 6.1° (Diagonal)		
IR LED	YES		
IR Effective Range**	Default mode: up to 40 meters IR enhanced mode: up to 60 meters		
IR Shift	YES		
IRIS Mode	YES (Two stage)	AES	
POE	YES (IEEE 802.3af)		YES (IEEE 802.3at)
WDR	--	YES	
External Alarm I/O	YES (1 input / 1 output)		
Heater	NO		YES
IP Rating	IP67		
White Balance	ATW		
AGC	Auto		
Operating Temperature	-10℃~40℃	-20℃~40℃	-40℃ ~ 40℃
Power Source (±10%)	12V / 1A	12V / 1.5A	12V / 2A
Power Consumption	DC Adapter: 9W (Max)		PoE & PoN: 28.5W; DC Adapter: 24W
■ Others			
Mobile Surveillance	iPad / iPhone / Android mobile device		
Event Notification	FTP / Email / SMS		
Digital Pan / Tilt / Zoom	YES		
Motion Detection	YES		
RTC (real-time clock)	YES		
Minimum Web Browsing Requirements	• Intel core i3 or higher, or equivalent AMD • 2 GB RAM • AGP graphics card, Direct Draw, 32MB RAM • Windows 7, Vista & XP, DirectX 9.0 or later • Internet Explorer 7.x or later		

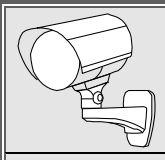
* The specifications are subject to change without notice.

** Dimensional tolerance: ± 5mm

	**Model 10**	**Model 11**
■ Network		
LAN Port	YES	
LAN Speed	10/100 Based-T Ethernet	
Supported Protocols	DDNS, PPPoE, DHCP, NTP, SNTP, TCP/IP, ICMP, SMTP, FTP, HTTP, RTP, RTSP, RTCP,IPv4, Bonjour, UPnP, DNS,UDP,IGMP, QoS	
Number of Online Users	10	
ONVIF Compatible	YES (Profile S)	
Security	(1) Multiple user access levels with password (2) IP address filtering (3) Digest authentication	
Remote Access	(1) Internet Explorer on Windows operating system (2) 16CH Video Viewer on Windows & MAC operating system (3) EagleEyes on iPhone, iPad & Android mobile devices	
■ Video		
Video Compression	H.264 / MJPEG	
Resolution	1080P to CIF	
Frame Rate	30fps	
Multiple Video Streaming	4 (H.264, MJPEG)	
■ General		
Image Sensor	1/2.8” CMOS image sensor	
Min Illumination	1/10,000 ~ 1/7.5 (Slow shutter)	
S/N Ratio	More than 48dB (AGC off)	
Electronic Shutter	1/2 to 1/10,000 sec	
Lens	f2.8 ~ 12mm / F1.4 ~ F2.8	
Viewing Angle	Wide: 97.4° (Horizontal) / 58.1° (Vertical) / 111.7° (Diagonal) Tele: 27.1° (Horizontal) / 15.2° (Vertical) / 31.1°(Diagonal)	
IR LED	2 Units	
IR Effective Range**	Default : up to 25 meters IR Enhanced Mode : up to 35 meters	
IR Shift	YES	
Smart Light Control	YES	
IRIS Mode	AES	
White Balance	ATW	
AGC	Auto	
WDR	YES	
Privacy Mask	YES	
POE (Power-over-Ethernet)	YES (IEEE 802.3af)	YES (IEEE 802.3at)
External Alarm I/O	YES (1 input / 1 output)	
MicroSD Card Slot	YES	
Heater	NO	YES
IP Rating	IP66	
Operating Temperature	-20℃ ~ 40℃	-40℃ ~ 40℃
Power Source (±10%)	12V / 1A	12V / 2A
Power Consumption (±10%)	PoE & PoN: 10.5W; DC Adapter: 8.4W	PoE & PoN: 23.5W; DC Adapter: 20W
■ Others		
Mobile Surveillance	iOS & Android	
Event Notification	FTP / Email / SMS	
Digital Pan / Tilt / Zoom	YES	
Motion Detection	YES	
RTC (real-time clock)	YES	
Minimum Web Browsing Requirements	• Intel core i3 or higher, or equivalent AMD • 2GB RAM • AGP graphics card, Direct Draw, 32MB RAM • Windows 7, Vista & XP, DirectX 9.0 or later • Internet Explorer 7.x or later	

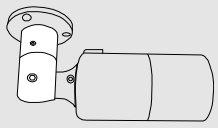
*The specifications are subject to change without notice

**Using IR enhanced mode and slow shutter speed, the distance can be extended even longer.

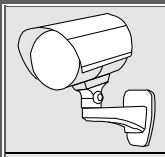
	**Model 12**	**Model 13**
■ Network		
LAN Port	YES	
LAN Speed	10/100 Based-T Ethernet	
Supported Protocols	DDNS, PPPoE, DHCP, NTP, SNTP, TCP/IP, ICMP, SMTP, FTP, HTTP, RTP, RTSP, RTCP,IPv4, Bonjour, UPnP, DNS,UDP,IGMP, QoS	
Number of Online Users	10	
ONVIF Compatible	YES (Profile S)	
Security	(1) Multiple user access levels with password (2) IP address filtering (3) Digest authentication	
Remote Access	(1) Internet Explorer on Windows operating system (2) 16CH Video Viewer on Windows & MAC operating system (3) EagleEyes on iPhone, iPad & Android mobile devices	
■ Video		
Video Compression	H.264 / MPEG4 / MJPEG	
Resolution	1080P, SXGA, 720P, VGA, QVGA	
Frame Rate	30fps	
Multiple Video Streaming	4 (H.264, MJPEG, MPEG4)	
■ General		
Image Sensor	1/2.9" CMOS image sensor	
Min Illumination	1 Lux / F1.4, 0 Lux (IR LED ON)	
S/N Ratio	More than 48dB (AGC off)	
Electronic Shutter	1/2 to 1/10,000 sec	
Lens	f2.8 ~ 12mm / F1.4 ~ F2.8	
Viewing Angle	Wide: 109° (Horizontal) / 76° (Vertical) / 116° (Diagonal) Tele: 24° (Horizontal) / 13.5° (Vertical) / 27°(Diagonal)	
IR LED	2 Units	
IR Effective Range**	Default : up to 25 meters IR Enhanced Mode : up to 35 meters	
IR Shift	YES	
Smart Light Control	NO	
IRIS Mode	AES	
White Balance	ATW	
AGC	Auto	
WDR	NO	
POE (Power-over-Ethernet)	YES (IEEE 802.3af)	YES (IEEE 802.3at)
External Alarm I/O	YES (1 input / 1 output)	
MicroSD Card Slot	YES	
Heater	NO	YES
IP Rating	IP66	
Operating Temperature	-20℃ ~ 40℃	-40℃ ~ 40℃
Power Source (±10%)	12V / 1A	12V / 2A
Power Consumption (±10%)	PoE & PoN: 12.5W; DC Adapter: 10.25W	PoE & PoN: 25W; DC Adapter: 21.1W
■ Others		
Mobile Surveillance	iOS & Android	
Event Notification	FTP / Email / SMS	
Digital Pan / Tilt / Zoom	YES	
Motion Detection	YES	
RTC (real-time clock)	YES	
Minimum Web Browsing Requirements	• Intel core i3 or higher, or equivalent AMD • 2GB RAM • AGP graphics card, Direct Draw, 32MB RAM • Windows 7, Vista & XP, DirectX 9.0 or later • Internet Explorer 7.x or later	

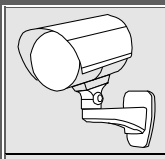
*The specifications are subject to change without notice

**Using IR enhanced mode and slow shutter speed, the distance can be extended even longer.

	**Model 14**
■ Network	
LAN Port	YES
LAN Speed	10/100 Based-T Ethernet
Supported Protocols	DDNS, PPPoE, DHCP, NTP, SNTP, TCP/IP, ICMP, SMTP, FTP, HTTP, RTP, RTSP, RTCP,IPv4, Bonjour, UPnP, DNS,UDP,IGMP, QoS
Number of Online Users	10
ONVIF Compatible	YES (Profile S)
Security	(1) Multiple user access levels with password (2) IP address filtering (3) Digest authentication
Remote Access	(1) Internet Explorer on Windows operating system (2) 16CH Video Viewer on Windows & MAC operating system (3) EagleEyes on iPhone, iPad & Android mobile devices
■ Video	
Video Compression	H.264 (Main Profile) / MJPEG
Resolution	1920 x 1080 / 1280 x 720 / 720 x 480 / 352 x 288
Frame Rate	30fps
Multiple Video Streaming	4 (H.264, MJPEG)
■ General	
Image Sensor	1/2.8" SONY CMOS image sensor
Min Illumination	0.1 Lux / F1.4(Wide)~F2.8(Tele), 0 Lux (IR LED ON)
Shutter Speed	1/10,000 ~ 1/7.5 (Slow shutter)
S/N Ratio	More than 48dB (AGC off)
Lens	f2.8 ~ 12mm / F1.4 ~ F2.8
Viewing Angle	Wide: 97.4° (Horizontal) / 58.1° (Vertical) / 111.7° (Diagonal) Tele: 27.1° (Horizontal) / 15.2° (Vertical) / 31.1°(Diagonal)
IR LED	2 units
IR Effective Distance**	Default : up to 25 meters IR Enhanced Mode : up to 35 meters
IR Shift	YES
Smart Light Control	YES
White Balance	ATW
AGC	Auto
IRIS Mode	AES
WDR	YES
Privacy Mask	YES
POE	YES (IEEE 802.3af)
External Alarm I/O	YES (1 input / 1 output)
MicroSD Card Slot	YES (up to 64GB)
IP Rating	IP66
Operating Temperature	-20℃ ~ 50℃
Power Source (±10%)	DC12V / 1A
Current Consumption (±10%)	700mA
Power Consumption (±10%)	10.5W (PoE); 10.5W (PoN) ; 8.4W (DC Adapter)
■ Others	
Mobile Surveillance	iOS & Android mobile devices
Event Notification	FTP / Email / SMS
Digital Pan / Tilt / Zoom	YES
Motion Detection	YES
RTC (real-time clock)	YES
Minimum Web Browsing Requirements	• Intel core i3 or higher, or equivalent AMD • 2GB RAM • AGP graphics card, Direct Draw, 32MB RAM • Windows 7, Vista & XP, DirectX 9.0 or later • Internet Explorer 7.x or later

*The specifications are subject to change without notice.
**By using IR enhanced mode and slow shutter speed, the distance can be extended even longer.

	**Model 15**	**Model 16**
■ Network		
LAN Port	YES	
LAN Speed	10/100 Based-T Ethernet	
Supported Protocols	DDNS, PPPoE, DHCP, NTP, SNTP, TCP/IP, ICMP, SMTP, FTP, HTTP, RTP, RTSP, RTCP,IPv4, Bonjour, UPnP, DNS,UDP,IGMP, QoS	
ONVIF Compatible	YES (Profile S)	
Number of Online Users	10	
Security	(1) Multiple user access levels with password (2) IP address filtering (3) Digest authentication	
Remote Access	(1) Internet Explorer on Windows operating system (2) 16CH Video Viewer on Windows & MAC operating system (3) EagleEyes on iPhone, iPad & Android mobile devices	
■ Video		
Network Compression	H.264 / MPEG4 / MJPEG	
Video Resolution	1280 x 1024 / 1280 x 720 / 640 x 480 / 320 x 240	
Frame Rate	30fps	
Multiple Video Streaming	4 (H.264 / MPEG4 / MJPEG)	
■ General		
Image Sensor	1/ 3” SONY CMOS image sensor	
Min Illumination	1 Lux / F1.5, 0 Lux (IR LED ON)	
Shutter Speed	1/2 to 1/10,000 sec	
S/N Ratio	More than 48dB (AGC off)	
Lens	f3.8mm / F1.5	
Viewing Angle	65.4° (Horizontal) / 49.9° (Vertical) / 80.4° (Diagonal)	
IR LED	2 units	
IR Effective Distance**	Default : up to 25 meters IR Enhanced Mode : up to 35 meters	
IR Shift	YES	
White Balance	ATW	
AGC	Auto	
IRIS Mode	AES	
POE	YES (IEEE 802.3af)	
External Alarm I/O	YES (1 input / 1 output)	
MicroSD Card Slot	YES (up to 64GB)	
Heater	NO	YES
IP Rating	IP66	
Operating Temperature	-20℃~50℃	-40℃~50℃
Power Source (±10%)	DC12V / 1A	
Current Consumption (±10%)	627mA max	1.32mA (IR Enhanced Mode ON + Heater ON)
Power Consumption (±10%)	9.74W (PoE) ; 9.74W (PoN) ; 8.28W max (DC Adapter)	20.5W (PoE) ; 20.5W (PoN) ; 17.42W max (DC Adapter)
■ Others		
Mobile Surveillance	iOS & Android mobile devices	
Event Notification	FTP / Email / SMS	
Digital Pan / Tilt / Zoom	YES	
Motion Detection	YES	
RTC (real-time clock)	YES	
Minimum Web Browsing Requirements	• Intel core i3 or higher, or equivalent AMD • 2GB RAM • AGP graphics card, Direct Draw, 32MB RAM • Windows 7, Vista & XP, DirectX 9.0 or later • Internet Explorer 7.x or later	

	**Model 17**	**Model 18**
■ Network		
LAN Port	YES	
LAN Speed	10/100 Based-T Ethernet	
Supported Protocols	DDNS, PPPoE, DHCP, NTP, SNTP, TCP/IP, ICMP, SMTP, FTP, HTTP, RTP, RTSP, RTCP,IPv4, Bonjour, UPnP, DNS,UDP,IGMP, QoS	
ONVIF Compatible	YES (Profile S)	
Number of Online Users	10	
Security	(1) Multiple user access levels with password (2) IP address filtering (3) Digest authentication	
Remote Access	(1) Internet Explorer on Windows operating system (2) 16CH Video Viewer on Windows & MAC operating system (3) EagleEyes on iPhone, iPad & Android mobile devices	
■ Video		
Network Compression	H.264 / MPEG4 / MJPEG	
Video Resolution	1920 x 1080 / 1280 x 720 / 640 x 480 / 320 x 240	
Frame Rate	30fps	
Multiple Video Streaming	4 (H.264 / MPEG4 / MJPEG)	
■ General		
Image Sensor	1/2.9" SONY CMOS image sensor	
Min Illumination	0.1 Lux / F1.5, 0 Lux (LED ON)	
Shutter Speed	1/2 to 1/10,000 sec	
S/N Ratio	More than 48dB (AGC off)	
Lens	f3.8mm / F1.5	
Viewing Angle	73.2° (Horizontal) / 42.8° (Vertical) / 83.2° (Diagonal)	
IR LED	2 units	
IR Effective Distance**	Default : up to 25 meters IR Enhanced Mode : up to 35 meters	
IR Shift	YES	
White Balance	ATW	
AGC	Auto	
IRIS Mode	AES	
POE	YES (IEEE 802.3af)	
External Alarm I/O	YES (1 input / 1 output)	
MicroSD Card Slot	YES (up to 64GB)	
Heater	NO	YES
IP Rating	IP66	
Operating Temperature	-20℃ ~ 50℃	-40℃~50℃
Power Source (±10%)	DC12V / 1A	DC12V / 2A
Current Consumption (±10%)	630mA (LED ON)	1.335A (IR Enhanced Mode ON + Heater ON)
Power Consumption (±10%)	10W (PoE); 10W (PoN) ; 8.5W (DC Adapter)	20.73W Max (PoE); 20.73W (PoN) ; 17.62W max (DC Adapter)
■ Others		
Mobile Surveillance	iOS & Android mobile devices	
Event Notification	FTP / Email / SMS	
Digital Pan / Tilt / Zoom	YES	
Motion Detection	YES	
RTC (real-time clock)	YES	
Minimum Web Browsing Requirements	• Intel core i3 or higher, or equivalent AMD • 2GB RAM • AGP graphics card, Direct Draw, 32MB RAM • Windows 7, Vista & XP, DirectX 9.0 or later • Internet Explorer 7.x or later	

*The specifications are subject to change without notice.

**By using IR enhanced mode and slow shutter speed, the distance can be extended even longer.

	Model 19
■ Network	
LAN Port	YES
LAN Speed	10/100 Based-T Ethernet
Supported Protocols	DDNS, PPPoE, DHCP, NTP, SNTP, TCP/IP, ICMP, SMTP, FTP, HTTP, RTP, RTSP, RTCP,IPv4, Bonjour, UPnP, DNS,UDP,IGMP, QoS
Number of Online Users	10
ONVIF Compatible	YES (Profile S)
Security	(1) Multiple user access levels with password (2) IP address filtering (3) Digest authentication
Remote Access	(1) Internet Explorer on Windows operating system (2) 16CH Video Viewer on Windows & MAC operating system (3) EagleEyes on iPhone, iPad & Android mobile devices
■ Video	
Video Compression	H.264 (Main Profile) / MJPEG
Resolution	1920 x 1080 / 1280 x 720 / 720 x 480 / 352 x 240
Frame Rate	30/25 fps
Multiple Video Streaming	4 (H.264, MJPEG)
■ General	
Image Sensor	1/2.8” CMOS image sensor
Min Illumination	1 Lux / F1.4, 0 Lux (LED ON)
Electronic Shutter	1/10,000 ~ 1/7.5 (Slow shutter)
S/N Ratio	More than 48dB (AGC off)
Lens	f2.8 ~ 12mm / F1.4 ~ F2.8
Viewing Angle	Wide: 66° (Horizontal) / 52° (Vertical) / 90° (Diagonal) Tele: 16° (Horizontal) / 10° (Vertical) / 22°(Diagonal)
IR LED	2 Units
IR Effective Range**	Default : up to 25 meters IR Enhanced Mode : up to 35 meters
IR Shift	YES
Smart Light Control	YES
White Balance	ATW
AGC	Auto
IRIS Mode	AES
WDR	YES
POE (Power-over-Ethernet)	YES (IEEE 802.3af)
Privacy Mask	YES
External Alarm I/O	YES (1 input / 1 output)
MicroSD Card Slot	YES (up to 64GB)
IP Rating	IP66
Operating Temperature	-20℃ ~ 40℃
Power Source (±10%)	12V / 1A
Current consumption (±10%)	700mA
Power Consumption (±10%)	PoE & PoN: 10.5W; DC Adapter: 8.4W
■ Others	
Mobile Surveillance	iOS & Android
Event Notification	FTP / Email / SMS
Digital Pan / Tilt / Zoom	YES
Motion Detection	YES
RTC (real-time clock)	YES
Minimum Web Browsing Requirements	• Intel core i3 or higher, or equivalent AMD • 2GB RAM • AGP graphics card, Direct Draw, 32MB RAM • Windows 7, Vista & XP, DirectX 9.0 or later • Internet Explorer 7.x or later

*The specifications are subject to change without notice.

**By using IR enhanced mode and slow shutter speed, the distance can be extended even longer.

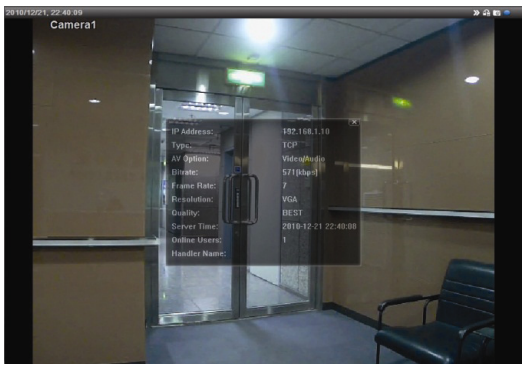
APPENDIX 2 BIT RATE TABLE FOR REFERENCE

The data below is for reference only.

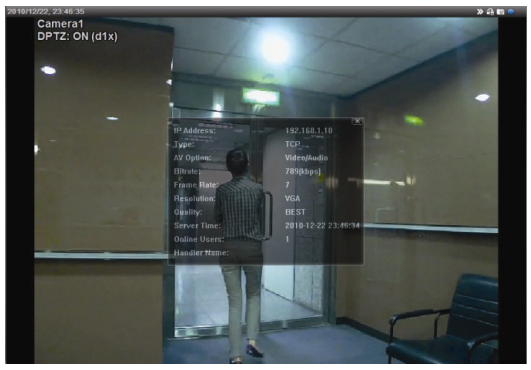
The bit rates listed here may vary depending on the resolution, image quality & frame rate you choose, the complexity of your monitoring area, and how often the moving objects show in your monitoring area.

Testing Environment

- Place: Office Entrance
- Network translation: H.264
- Camera type: Megapixel camera



Static: No one coming in and out



Dynamic: One or two people coming in and out

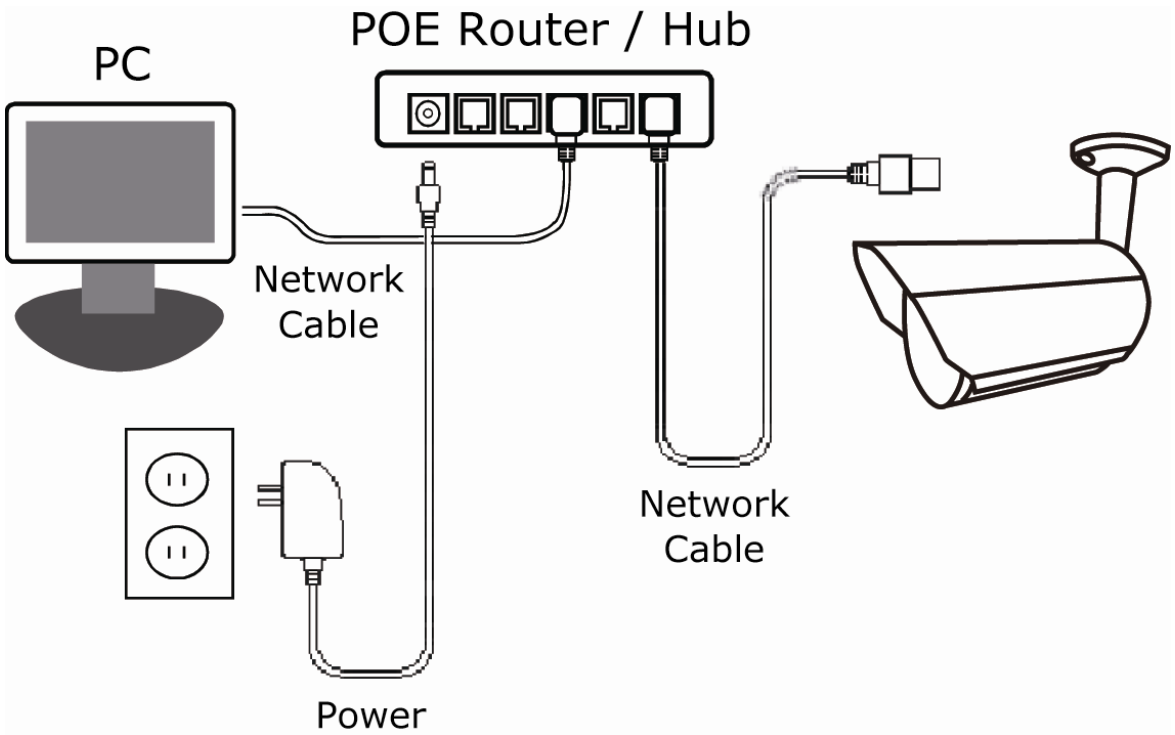
Resolution	Quality	Frame Rate	(Dynamic) kbps	(Static) kbps
SXGA	Best	FULL	3253	3216
	High		2375	2160
	Normal		1571	1266
	Basic		1465	873
VGA	Best		2010	1261
	High		1042	1034
	Normal		685	572
	Basic		457	350
QVGA	Best		646	366
	High		482	350
	Normal		302	286
	Basic		168	161
SXGA	Best	1/4	1163	1076
	High		989	715
	Normal		855	534
	Basic		719	443
VGA	Best		789	571
	High		451	447
	Normal		349	237
	Basic		217	165
QVGA	Best		269	147
	High		182	131
	Normal		164	113
	Basic		97	71

Resolution	Quality	Frame Rate	(Dynamic) kbps	(Static) kbps
SXGA	Best	1/15	581	374
	High		405	342
	Normal		487	248
	Basic		337	141
VGA	Best		358	79
	High		201	63
	Normal		180	28
	Basic		92	15
QVGA	Best		111	84
	High		99	68
	Normal		97	54
	Basic		58	42

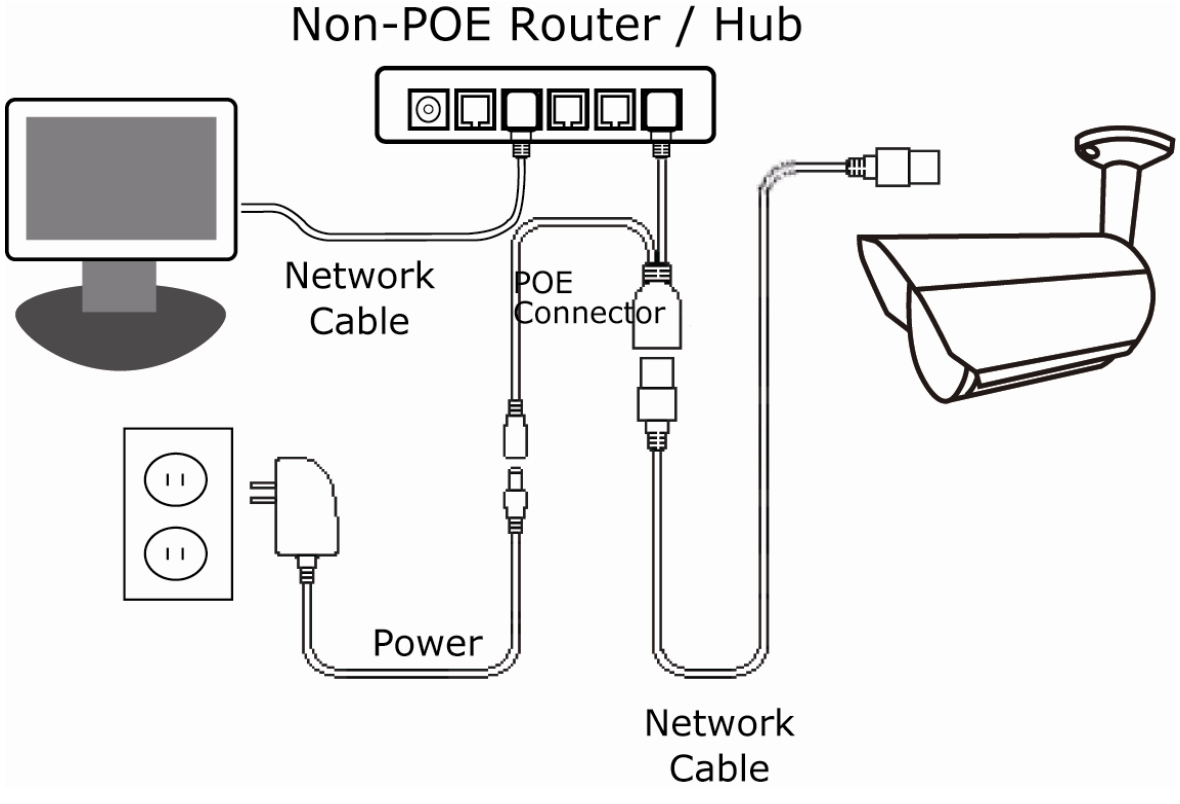
APPENDIX 3 POE CONNECTION

This device supports PoE (Power-over-Ethernet), developed by the IEEE802.3af or IEEE802.3at task force, and power can be supplied over the same network (Ethernet) cable as the one used to connect to Internet. No power cable is needed. Below shows two examples of POE application for reference.

- When your router / hub supports POE connection



- When your router / hub doesn't support POE connection (An optional POE connected required)



APPENDIX 4 API ID APPLICATION FOR SMS MESSAGING

To allow the camera automatically sending a text message when an event happens, you need to apply an API ID from a mobile messaging company first, such as Clickatell or EVERY8D.

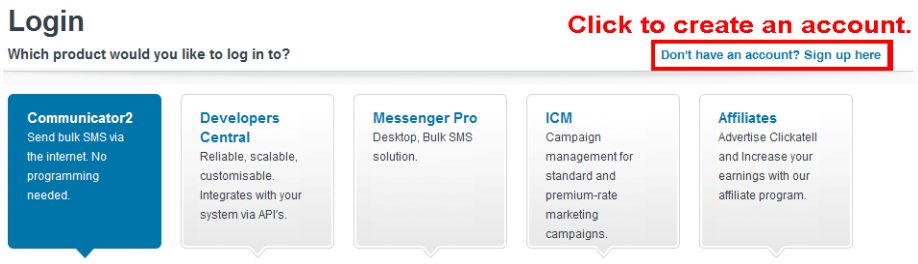
Below shows an example of how to get an API ID from Clickatell.

Note: The SMS messaging may not be totally free. Please check the charge policy of the messaging service you use.

Note: The instructions below are for reference only and may vary when Clickatell's official website is updated.

Please follow the steps below for application.

Step1: Go to http://www.clickatell.com/login.php. Sign up an account first.


Login
Which product would you like to log in to?
Click to create an account.
Don't have an account? Sign up here
Communicator2
Send bulk SMS via the internet. No programming needed.
Developers Central
Reliable, scalable, customisable. Integrates with your system via API's.
Messenger Pro
Desktop, Bulk SMS solution.
ICM
Campaign management for standard and premium-rate marketing campaigns.
Affiliates
Advertise Clickatell and Increase your earnings with our affiliate program.

Step2: Select "Developers Central", select the location where you want to use this service, and fill in your information to create an account.

Which product would you like to sign up for?
Communicator2
Send bulk SMS via the internet. No programming needed.
Developers Central
Reliable, scalable, customisable. Integrates with your system via APIs.
Developers Central
Which product is right for me?
How much will it cost?
Where would you like to send messages to?
Check which one is suitable for you.
Anywhere in the World
International excl US Free signup
I want to send fewer than 10,000 messages per month to the Americas
Special Offers: One Country only
Why special?
South Africa Free signup
UK Free signup
Ireland Free signup
India Free signup
What is your first name? *
test
What is your last name? *
test
Which username would you like to use? *
test
Fill in your information
What is your mobile number? *
886
22586666
[Country code][area code or network code (without first 0) and mobile number, no space, brackets or dashes]
Example:[1][4155551212](for USA) or [27][123457894](for South Africa)
What is your email address? *
Privacy Policy
test@tech.com
Are you human? *Please enter the words you see in the box, in order and separated by a space.
dymovant This
Type the two words:
dymovant This
reCAPTCHA stop spam. read books.
Create your account
Create my Account
By clicking this button, you agree to Clickatell's Terms and Conditions

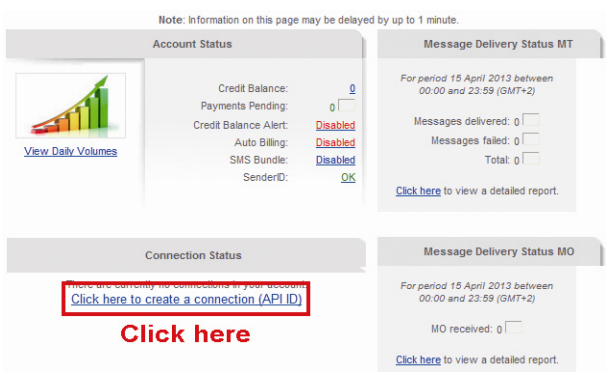
Step3: When the account is created, the system will automatically send an Email to your specified Email address with the user name, password, and client ID used to log into the service.

Step4: Click the link within the email to log in, and you will be prompted to validate your mobile phone number. Select "SEND ACTIVATION CODE". The system will send an activation code to that number for verification.

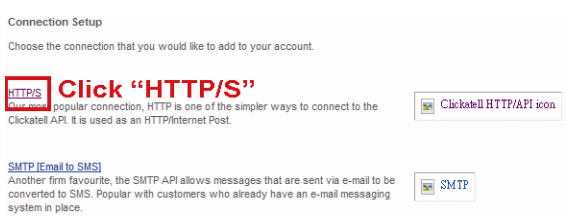
Check if you receive a text message from Clickatell, and enter the activation code.

Verify your Mobile Number
For security reasons you are required to verify your mobile number in order to make your first credit purchase and send non-test SMS messages.
Your activation code will be sent to
88622586666
SEND ACTIVATION CODE NOW
If this is not your number, please retype your mobile number in the box above and click the "SEND ACTIVATION CODE NOW"
Enter activation code here
Enter your activation code once you have received it on your mobile phone:
VERIFY NOW
Coupon Code:

Step4: In your account, find “Connection Status” and create a connection (API ID).


Note: Information on this page may be delayed by up to 1 minute.
Account Status
Credit Balance: 0
Payments Pending: 0
Credit Balance Alert: Disabled
Auto Billing: Disabled
SMS Bundle: Disabled
SenderID: OK
View Daily Volumes
Message Delivery Status MT
For period 15 April 2013 between 00:00 and 23:59 (GMT+2)
Messages delivered: 0
Messages failed: 0
Total: 0
Click here to view a detailed report.
Connection Status
Click here to create a connection (API ID)
Click here
Message Delivery Status MO
For period 15 April 2013 between 00:00 and 23:59 (GMT+2)
MO received: 0
Click here to view a detailed report.

Step5: Select “HTTP/S”.

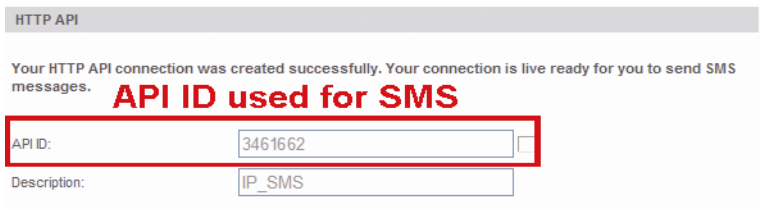

Connection Setup
Choose the connection that you would like to add to your account.
HTTP/S
Click “HTTP/S”
Our most popular connection, HTTP is one of the simpler ways to connect to the Clickatell API. It is used as an HTTP/Internet Post.
Clickatell HTTP/API icon
SMTP [Email to SMS]
Another firm favourite, the SMTP API allows messages that are sent via e-mail to be converted to SMS. Popular with customers who already have an e-mail messaging system in place.
SMTP

Give a meaning name for this connection, and click “Submit and Get API ID”.

Add Connection
HTTP API - Information entered during this step can be modified later.
Description: IP_SMS
Give a name for this connection
Required field
Replace Leading Zero (Dial Prefix)
Enable IP Address Restriction (IP Lock Down)
Enable SMS Status Notification (MT Callback)
Submit and Get API ID
Click

Step5: An API ID will be generated as follows.

Note: Note down the API ID for SMS notification setting later.


HTTP API
Your HTTP API connection was created successfully. Your connection is live ready for you to send SMS messages.
API ID used for SMS
API ID: 3461662
Description: IP_SMS

APPENDIX 5 Q&A

For more details about Q&A, please visit our official website: www.eagleeyescctv.com

Question	Answer
I can connect to this camera in my house or office where it's installed with wireless network. But when I leave my house or office, I can't connect to it from my mobile phone (with 3G network), or other PC (connected to Internet). Why?	You didn't configure this camera to Internet, but only in LAN. Please follow the steps in the advanced network setup guide downloadable from www.surveillance-download.com/user/m359a.swf to complete network configurations, or it's recommended for you to check with your local installer or reseller for this service because it's usually hard for a person who doesn't have network knowledge to set network configurations.
My live images are not fluent. Why?	Image fluency could be affected by the local network upload bandwidth, router efficiency, client network download bandwidth, complexity of live view, and more. (Recommended) To have the best image fluency, select QVGA; to have the best image quality, select "SXVGA" based on the model you have; to have normal image fluency and quality, select "VGA".
The live video keeps flickering. Why?	Please try adjusting the power line frequency to "60 Hz" or "50 Hz" for the camera. For iPhone users, access the camera, and select " " on the top right corner to enter IPCAM Configuration page. Then, go to "Advance Setup" → "Camera" to change setting. For access from Internet Explorer, log into the camera, and select "Config." → "Camera" → "Camera".

APPENDIX 6 RECORDING TIME TABLE

Below shows the estimated total recording time for each recording resolution.

The recording time per resolution is the average value collected from the both alarm trigger conditions indicated in “Testing Environment”, and is for reference only.

The time may vary depending on the resolution, image quality & frame rate you choose, the complexity of your monitoring area, and how often the moving objects show in your monitoring area.

Testing Environment

- Place: Office
- Monitoring area: 1.5 meters away from the camera
- Alarm trigger conditions:
  (1) One person walks by the monitoring area and leaves immediately.
  (2) Two persons walk by the monitoring area. One goes away immediately, and the other one stays a while and goes away.

Recording Resolution	SXGA	VGA	QVGA
Recording time (second)	25	115	211

APPENDIX 7 MICRO SD CARD COMPATIBLE LIST

Manufacturer	Capacity	Class
ADATA	2GB	--
	4GB	Class 6
Apacer	2GB	--
	4GB	Class 4
SanDisk	2GB	--
	4GB	Class 4
	8GB	Class 4
	16GB	Class 4
	32GB	Class 4
Verico	2GB	--
	4GB	Class 4
	16GB	Class 10
Silicon Power	64GB	--
Kingmax	64GB	--

Manufacturer	Capacity	Class
Transcend	2GB	--
	4GB	Class 2
	4GB	Class 4
	4GB	Class 6
	8GB	Class 6
	16GB	Class 10
Kingston	2GB	--
	4GB	Class 4
	8GB	Class 4
	32GB	Class 4
	64GB	Class 10
TOSHIBA	16GB	Class 4
TOPRAM	32GB	Class 10

APPENDIX 8 ENABLE PUSH VIDEO

A8.1 What's Push Video

"Push Video" is an active notification system, different from traditional FTP & Email notification methods. It's more active and stable, but also easier to be affected by your network bandwidth.

When "Push Video" is enabled and any alarm event occurs, you'll be able to receive notifications on your iPhone / iPad / Android mobile device within 5 seconds.

A8.2 Prerequisites

Before configure Push Video, make sure you have checked the following:

- ✓ You have an iOS or Android mobile device with our self-developed APP, "EagleEyes", installed.
- ✓ You have configured the IP address of your camera in the EagleEyes address book, and it's accessible from your iOS or Android mobile device.

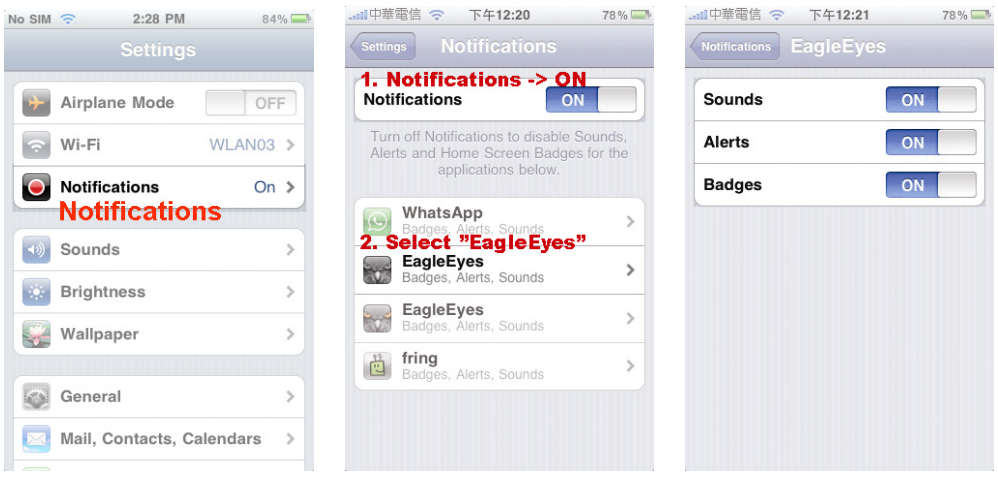
A8.3 Enable Push Video

A5.3.1 From iOS devices

Step1: In the main screen, select "Settings" → "Notifications".

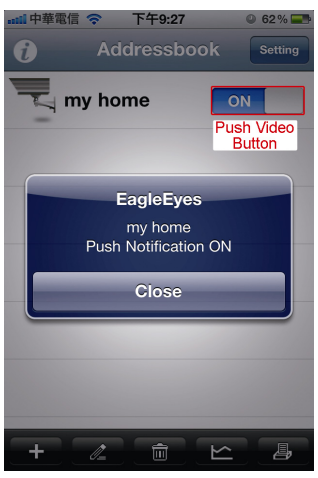
-- Make sure "Notifications" is set to "ON".

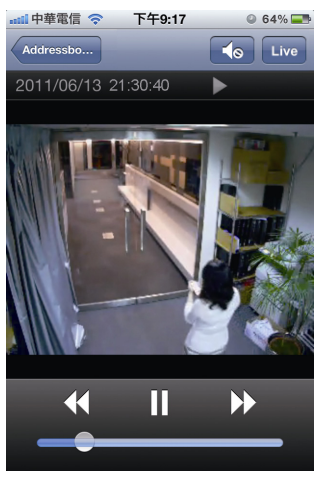
-- Select "EagleEyes", and make sure its settings are set to "ON".



Step2: Open "EagleEyes", and switch the Push Video button to "ON". You'll receive the message indicating that Push Notification (Push Video) is on.

Step3: Return to the main menu of your iPhone / iPad. You'll receive event notifications when there's a human detection event. Select "View" to immediately play the recorded clip.





A4.3.2 From Android Mobile Device

In the address book, switch “Guard” from “OFF” to “ON”.